



STIC Search Report

EIC 1700

STIC Database Tracking Number: 179456

TO: Satya Sastri
Location: REM 10A30
Art Unit : 1713
February 15, 2006

Case Serial Number: 10/723510

From: Les Henderson
Location: EIC 1700
REM 4B28 / 4A30
Phone: 571-272-2538

Leslie.henderson@uspto.gov

Search Notes



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
- Relevant prior art **found**, search results used as follows:
 - 102 rejection
 - 103 rejection
 - Cited as being of interest.
 - Helped examiner better understand the invention.
 - Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- Foreign Patent(s)
- Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

- Relevant prior art **not found**:

- Results verified the lack of relevant prior art (helped determine patentability).
- Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

SEARCH REQUEST FORM**Scientific and Technical Information Center**

Requester's Full Name: Satyendra Examiner #: 79815 Date: _____
 Art Unit: 1713 Phone Number 30 _____ Serial Number: 161723510
 Mail Box and Bldg/Room Location: Rem 10A 36 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: fluorine containing oligomeric composition and use

Inventors (please provide full names): Coppens, and Hildebrandt (thereof)
& Janiwala

Earliest Priority Filing Date: _____

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

STAFF USE ONLY		
Type of Search		
Vendors and cost where applicable		
Searcher: <u>YH</u>	NA Sequence (#)	STN <u>\$ 1,225.97</u>
Searcher Phone #:	AA Sequence (#)	Dialog _____
Searcher Location: <u>5</u>	Structure (#)	Questel/Orbit _____
Date Searcher Picked Up: <u>2/16/06</u>	Bibliographic	Dr.Link _____
Date Completed: <u>2/16/06</u>	Litigation	Lexis/Nexis _____
Searcher Prep & Review Time: <u>70</u>	Fulltext	Sequence Systems _____
Clerical Prep Time: <u>20 300 240</u>	Patent Family	WWW/Internet _____
Online Time: <u>270</u>	Other	Other (specify) _____



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CONFIRMATION NO. 9001

Bib Data Sheet

SERIAL NUMBER 10/723,510	FILING DATE 11/26/2003 RULE	CLASS 524	GROUP ART UNIT 1713	ATTORNEY DOCKET NO. 59369US002
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APPLICANTS

Chetan P. Jariwala, Woodbury, MN;

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none on 11/30/03

** CONTINUING DATA *****

** FOREIGN APPLICATIONS *****

IF REQUIRED, FOREIGN FILING LICENSE GRANTED

** 02/26/2004

Foreign Priority claimed	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	STATE OR COUNTRY	SHEETS DRAWING	TOTAL CLAIMS	INDEPENDENT CLAIMS
35 USC 119 (a-d) conditions met	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after allowance	MN	0	26	1
Verified and Acknowledged	Examiner's Signature Initials				

ADDRESS

32692
 3M INNOVATIVE PROPERTIES COMPANY
 PO BOX 33427
 ST. PAUL , MN
 55133-3427

TITLE

Fluorochemical oligomeric composition and use thereof

FILING FEE	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue)
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Fluorochemical Oligomeric Composition And Use Thereof

Abstract

5 A method of treating fibrous substrates by contacting the substrate with a fluorochemical composition comprising: a fluorochemical oligomeric component and an antisoiling component is described. The compositions provide desirable antisoiling properties, as well as oil, water and stain repellency to fibrous substrates.

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Application No.: 10/723510

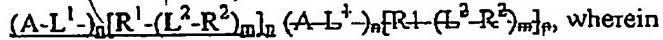
Case No.: 59369US002

Amendments to the Claims:

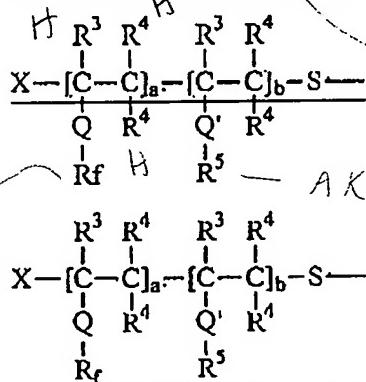
The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently amended) A composition comprising
a) a fluorochemical oligomeric compound of the formula:



A is a fluorochemical oligomeric moiety of the formula



wherein the sum of $a + b$ is a [[an]] number such that the compound is oligomeric, and a is at least 1;

R^3 is hydrogen, halogen, or straight chain or branched chain alkyl containing 1 to about 4 carbon atoms;

each R^4 is independently hydrogen or straight chain or branched chain alkyl containing 1 to about 4 carbon atoms;

Q and Q' are each independently a covalent bond or an organic linking group,

R_f is a fluoroaliphatic group that comprises a fully fluorinated terminal group;

R^5 is a fluorine-free aliphatic group;

X is a hydrogen atom or a group derived from a free radical initiator;

L^1 and L^2 are independently divalent linking groups,

R^1 is the residue of an organic isocyanate,

R^2 is a hydrogen or an aliphatic group,

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n is 1 to 4, m is 0 to 4, and p is 1 to 4,
 wherein at least one of said R² and R⁵ groups has 12 or more carbon atoms; and

b) an antisoiling compound.

2. (Original) The composition of claim 1 wherein the ratio of a to b of said fluoroochemical oligomer a), is at least 2:1.

3. (Original) The composition of claim 1, wherein R_f has the structure C_oF_{2o+1}, where o is 3 to 7.

4. (Original) The composition of claim 1, wherein each of L¹ and L² are derived from the reaction of a nucleophilic group with an isocyanate group.

5. (Original) The composition of claim 4 wherein L¹ and L² are independently selected from a ureylene, a urethanylbiuretylene, a guanidinylene and a carbodiimidylene.

6. (Original) The composition of claim 1 wherein a+b of said oligomeric moiety is 3 to 20.

7. (Original) The composition of claim 1 wherein the ratio of component a) to component b) is 1:20 to 20:1.

8. (Original) The composition of claim 1, wherein Q and Q' of said fluoroochemical oligomer are independently selected from the following structures, wherein each k is independently an integer from 0 to about 20, R₁' is hydrogen, aryl, or alkyl of 1 to about 4 carbon atoms, and R₂' is alkyl of 1 to about 20 carbon atoms: 1-20 A K K = 0 - 20

-SO ₂ NR ₁ '-(CH ₂) _k O(O)C-	-CONR ₁ '-(CH ₂) _k O(O)C-
-(CH ₂) _k O(O)C-	-CH ₂ CH(OR ₂ ')CH ₂ O(O)C-
-(CH ₂) _k C(O)O-	-(CH ₂) _k SC(O)-

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<input checked="" type="checkbox"/> -(CH ₂) _k O(CH ₂) _k O(O)C-	<input checked="" type="checkbox"/> -(CH ₂) _k S(CH ₂) _k O(O)C-
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<input checked="" type="checkbox"/> -(CH ₂) _k S(CH ₂) _k C(O)O-	<input checked="" type="checkbox"/> -CH ₂ CH(OR ₂ ')CH ₂ C(O)O-
<input checked="" type="checkbox"/> -SO ₂ NR ₁ '(CH ₂) _k C(O)O-	<input checked="" type="checkbox"/> -(CH ₂) _k O-
<input checked="" type="checkbox"/> -C _k H _{2k} -OC(O)NH-	<input checked="" type="checkbox"/> -C _k H _{2k} -NR ₁ 'C(O)NH-,
<input checked="" type="checkbox"/> -OC(O)NR'(CH ₂) _k -	<input checked="" type="checkbox"/> -(CH ₂) _k NR ₁ '- and
<input checked="" type="checkbox"/> -(CH ₂) _k NR ₁ 'C(O)O-	

9. (Original) The composition of claim 1 wherein said R² group is an aliphatic group of 12 to 75 carbon atoms.

10. (Original) The composition of claim 1 wherein the sum of carbons atoms in said R² and R⁵ groups is 12 to 100.

11. (Original) The composition of claim 1 wherein said antisoiling compound is selected from a methacrylic ester polymer, colloidal alumina, colloidal silica, a silsesquioxane, polyvinylpyrrolidone and a water-soluble condensation polymer comprising the reaction product of formaldehyde and an amine.

12. (Original) The composition of claim 1 wherein said antisoiling compound comprises a water-insoluble addition polymers derived from a polymerizable ethylenically unsaturated monomer free of non-vinylic fluorine, the polymer having at least one major transition temperature higher than about 25°C .

13. (Original) The composition of claim 1, where b of said fluorochemical oligomeric moiety is 0.

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14. (Original) The composition of claim 1, wherein R¹ is the residue of an aliphatic or aromatic polyisocyanate.

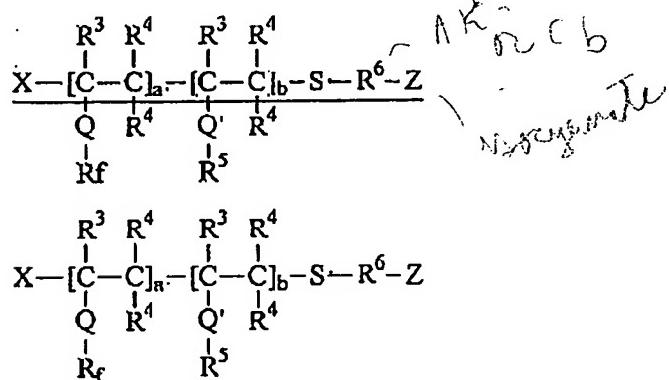
15. (Original) The composition of claim 1 wherein the ratio of component a) to component b) is 1:10 to 10:1.

16. (Original) The composition of claim 1, wherein said antisoiling (component b)) is selected from the group of (meth)acrylic ester (co)polymers, colloidal alumina, colloidal silica, silsesquioxanes, poly(vinylpyrrolidone) and styrene-maleic anhydride copolymers.

17. (Original) The composition of claim 16 wherein said antisoiling agent comprises ethyl methacrylate/methyl methacrylate copolymer.

18. (Currently amended) The composition of claim 1, wherein said fluoroochemical oligomeric component is the reaction product of

a) a fluoroochemical oligomer of the formula



wherein

R⁶ is an aliphatic or aromatic group and Z is an isocyanate-reactive group,

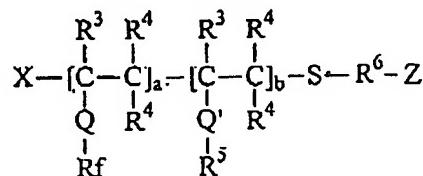
b) a isocyanate of the formula R¹(NCO)_x, wherein x is 1 to 6, wherein R¹ is an aliphatic, alicyclic or aromatic group, and

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c) an aliphatic compound of the formula $R^2-(Z)_q$, where R^2 is a aliphatic group, Z is an isocyanate reactive group and q is 1 to 4.

19. (Original) The composition of claim 1, wherein said fluorochemical oligomeric component is the reaction product of

a) a fluorochemical oligomer of the formula



wherein

R^6 is an aliphatic or aromatic group,

R^5 is a non-fluorinated aliphatic group of 12 to 75 carbons atoms, and

Z is an isocyanate-reactive group, and

b) an isocyanate of the formula $R^1(NCO)_x$, wherein x is 1 to 6, wherein R^1 is an aliphatic, alicyclic or aromatic group.

20. (Original) A coating composition comprising a mixture of:

- a) a solvent; and
- b) the composition of Claim 1.

21. (Original) The coating composition of claim 20 whercin said mixture comprises an aqueous solution, dispersion or suspension.

22. (Original) The coating composition of claim 20 further comprising a surfactant.

23. (Original) The coating composition of claim 20 comprising 0.1 to 50 weight percent of said composition of claim 1 .

24. (Original) An article comprising:

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a substrate having one or more surfaces; and
the fluorochemical composition of Claim 1 coated on one or more surfaces of said
substrate.

25. (Original) The article of Claim 24 wherein the substrate is a fibrous substrates.

26. (Original) A method of imparting repellency and antisoiling to a substrate, having
one or more surfaces, comprising the steps of:

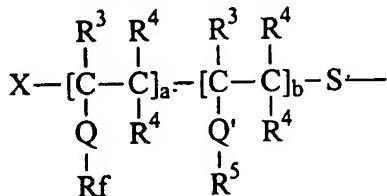
applying the coating composition of claim 20 onto one or more surfaces of said substrate;
and
curing the coating composition at ambient or elevated temperature.

We claim:

1. A composition comprising
- a) a fluorochemical oligomeric compound of the formula:

5 $(A-L^1-)_n[R1-(L^2-R^2)_m]_p$, wherein

A is a fluorochemical oligomeric moiety of the formula



wherein the sum of a + b is an number such that the compound is oligomeric, and
a is at least 1;

10 R^3 is hydrogen, halogen, or straight chain or branched chain alkyl containing 1 to
about 4 carbon atoms;

each R^4 is independently hydrogen or straight chain or branched chain alkyl
containing 1 to about 4 carbon atoms;

15 Q and Q' are each independently a covalent bond or an organic linking group,
 R_f is a fluoroaliphatic group that comprises a fully fluorinated terminal group;

R^5 is a fluorine-free aliphatic group;

X is a hydrogen atom or a group derived from a free radical initiator;

L^1 and L^2 are independently divalent linking groups,

R^1 is the residue of an organic isocyanate,

20 R^2 is a hydrogen or an aliphatic group,

n is 1 to 4, m is 0 to 4, and p is 1 to 4,

wherein at least one of said R^2 and R^5 groups has 12 or more carbon atoms; and

- b) an antisoiling compound.

25 2. The composition of claim 1 wherein the ratio of a to b of said
fluorochemical oligomer a), is at least 2:1.

3. The composition of claim 1, wherein R_f has the structure C_oF_{2o+1} , where o
is 3 to 7.

4. The composition of claim 1, wherein each of L¹ and L² are derived from the reaction of a nucleophilic group with an isocyanate group.

5. The composition of claim 4 wherein L¹ and L² are independently selected from a ureylene, a urethanylbiuretylene, a guanidinylene and a carbodiimidylene.

6. The composition of claim 1 wherein a+b of said oligomeric moiety is 3 to 20.

10 7. The composition of claim 1 wherein the ratio of component a) to component b) is 1:20 to 20:1.

8. The composition of claim 1, wherein Q and Q' of said fluorocchemical oligomer are independently selected from the following structures, wherein each k is independently an integer from 0 to about 20, R₁' is hydrogen, aryl, or alkyl of 1 to about 15 4 carbon atoms, and R₂' is alkyl of 1 to about 20 carbon atoms:

-SO ₂ NR ₁ '(CH ₂) _k O(O)C-	-CONR ₁ '(CH ₂) _k O(O)C-
-(CH ₂) _k O(O)C-	-CH ₂ CH(OR ₂ ')CH ₂ O(O)C-
-(CH ₂) _k C(O)O-	-(CH ₂) _k SC(O)-
-(CH ₂) _k O(CH ₂) _k O(O)C-	-(CH ₂) _k S(CH ₂) _k O(O)C-
-(CH ₂) _k SO ₂ (CH ₂) _k O(O)C-	-(CH ₂) _k S(CH ₂) _k OC(O)-
-(CH ₂) _k SO ₂ NR ₁ '(CH ₂) _k O(O)C-	-(CH ₂) _k SO ₂ -
-SO ₂ NR ₁ '(CH ₂) _k O-	-SO ₂ NR ₁ '(CH ₂) _k -
-(CH ₂) _k O(CH ₂) _k C(O)O-	-(CH ₂) _k SO ₂ NR ₁ '(CH ₂) _k C(O)O-
-(CH ₂) _k SO ₂ (CH ₂) _k C(O)O-	-CONR ₁ '(CH ₂) _k C(O)O-
-(CH ₂) _k S(CH ₂) _k C(O)O-	-CH ₂ CH(OR ₂ ')CH ₂ C(O)O-
-SO ₂ NR ₁ '(CH ₂) _k C(O)O-	-(CH ₂) _k O-
-C _k H _{2k} -OC(O)NH-	-C _k H _{2k} -NR ₁ 'C(O)NH-,
-OC(O)NR'(CH ₂) _k -	-(CH ₂) _k NR ₁ '- and
-(CH ₂) _k NR ₁ 'C(O)O-	

9. The composition of claim 1 wherein said R² group is an aliphatic group of 12 to 75 carbon atoms.

10. The composition of claim 1 wherein the sum of carbons atoms in said R² 5 and R⁵ groups is 12 to 100.

11. The composition of claim 1 wherein said antisoiling compound is selected from a methacrylic ester polymer, colloidal alumina, colloidal silica, a silsesquioxane, polyvinylpyrrolidone and a water-soluble condensation polymer comprising the reaction 10 product of formaldehyde and an amine.

12. The composition of claim 1 wherein said antisoiling compound comprises a water-insoluble addition polymers derived from a polymerizable ethylenically unsaturated monomer free of non-vinylic fluorine, the polymer having at least one major 15 transition temperature higher than about 25°C .

13. The composition of claim 1, where b of said fluorochemical oligomeric moiety is 0.

20 14. The composition of claim 1, wherein R¹ is the residue of an aliphatic or aromatic polyisocyanate.

15. The composition of claim 1 wherein the ratio of component a) to component b) is 1:10 to 10:1.

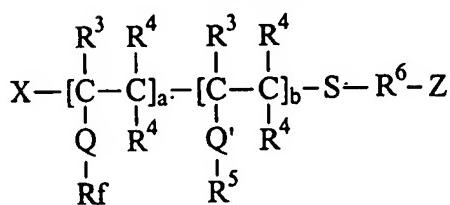
25

16. The composition of claim 1, wherein said antisoiling (component b)) is selected from the group of (meth)acrylic ester (co)polymers, colloidal alumina, colloidal silica, silsesquioxanes, poly(vinylpyrrolidone) and styrene-maleic anhydride copolymers.

30 17. The composition of claim 16 wherein said antisoiling agent comprises ethyl methacrylate/methyl methacrylate copolymer.

18. The composition of claim 1, wherein said fluorochemical oligomeric component is the reaction product of

- a) a fluorochemical oligomer of the formula



5

wherein

R^6 is an aliphatic or aromatic group and Z is an isocyanate-reactive group,

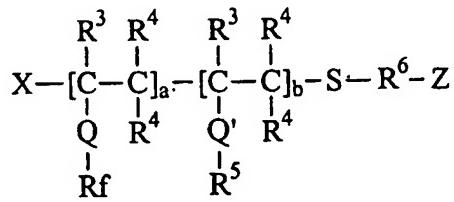
b) a isocyanate of the formula $\text{R}^1(\text{NCO})_x$, wherein x is 1 to 6, wherein

R^1 is an aliphatic, alicyclic or aromatic group, and

10 c) an aliphatic compound of the formula $\text{R}^2-(\text{Z})_q$, where R^2 is a aliphatic group, Z is an isocyanate reactive group and q is 1 to 4.

19. The composition of claim 1, wherein said fluorochemical oligomeric component is the reaction product of

- 15 a) a fluorochemical oligomer of the formula



wherein

R^6 is an aliphatic or aromatic group,

R^5 is a non-fluorinated aliphatic group of 12 to 75 carbons atoms, and

20 Z is an isocyanate-reactive group, and

b) an isocyanate of the formula $\text{R}^1(\text{NCO})_x$, wherein x is 1 to 6, wherein R^1 is an aliphatic, alicyclic or aromatic group.

20. A coating composition comprising a mixture of:

- 25 a) a solvent; and

b) the composition of Claim 1.

21. The coating composition of claim 20 wherein said mixture comprises an aqueous solution, dispersion or suspension.

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22. The coating composition of claim 20 further comprising a surfactant.

23. The coating composition of claim 20 comprising 0.1 to 50 weight percent of said composition of claim 1 .

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24. An article comprising:

a substrate having one or more surfaces; and

the fluorochemical composition of Claim 1 coated on one or more surfaces of said substrate.

15

25. The article of Claim 24 wherein the substrate is a fibrous substrates.

26. A method of imparting repellency and antisoiling to a substrate, having one or more surfaces, comprising the steps of:

20 applying the coating composition of claim 20 onto one or more surfaces of said substrate; and

curing the coating composition at ambient or elevated temperature.

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(FILE 'HOME' ENTERED AT 14:01:44 ON 15 FEB 2006)

FILE 'HCAPLUS' ENTERED AT 14:05:05 ON 15 FEB 2006

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L1 1 SEA ABB=ON PLU=ON US20050113508/PN
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32131-17-2/BI OR 53200-31-0/BI OR 7631-86-9/BI OR
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D SAV
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L3 SCR 1918 OR 1838

L4 STR

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L7 STR

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L9 STR

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ACT SAS510B/A

L11 SCR 1918 OR 1838

L12 STR

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L14 STR

L15 (26835)SEA SUB=L13 SSS FUL L14

L16 STR

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L18 SCR 1918 OR 1838

L19 STR

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L21 STR

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L23 STR

L24 4147 SEA SUB=L22 SSS FUL L23

D QUE STAT L20

L25 2 SEA ABB=ON PLU=ON L2 AND L5

D SCAN

L26 2 SEA ABB=ON PLU=ON L10 AND L2

D SCAN

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D QUE STAT

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L31 2 SEA ABB=ON PLU=ON L2 AND L30
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D SAV
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D L1

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L52 0 SEA ABB=ON PLU=ON L44 AND L5
L53 0 SEA ABB=ON PLU=ON L51 AND L5
D QUE STAT L36

FILE 'HCAPLUS' ENTERED AT 15:04:11 ON 15 FEB 2006

L54 23393 SEA ABB=ON PLU=ON L5
 L55 5 SEA ABB=ON PLU=ON L26
 L56 18293 SEA ABB=ON PLU=ON L10
 L57 238 SEA ABB=ON PLU=ON L17
 L58 1833 SEA ABB=ON PLU=ON L24
 D QUE STAT L17
 D QUE STAT L24

FILE 'REGISTRY' ENTERED AT 15:07:06 ON 15 FEB 2006

L59 413 SEA ABB=ON PLU=ON L17 AND L24

FILE 'HCAPLUS' ENTERED AT 15:07:28 ON 15 FEB 2006

L60 121 SEA ABB=ON PLU=ON L59
 D SCAN L55
 L61 165 SEA ABB=ON PLU=ON L45/D OR L45/DP
 L62 1 SEA ABB=ON PLU=ON L46/D OR L46/DP
 L63 509 SEA ABB=ON PLU=ON L47/D OR L47/DP
 L64 77 SEA ABB=ON PLU=ON L48/D OR L48/DP
 L65 5 SEA ABB=ON PLU=ON L49/D OR L49/DP
 L66 299 SEA ABB=ON PLU=ON L50/D OR L50/DP
 L67 90 SEA ABB=ON PLU=ON L36
 L68 140 SEA ABB=ON PLU=ON L57 AND L58
 L69 3348 SEA ABB=ON PLU=ON L30
 L70 14 SEA ABB=ON PLU=ON L37
 D SCAN TI
 L71 3 SEA ABB=ON PLU=ON L43
 D SCAN TI
 L72 0 SEA ABB=ON PLU=ON L67 AND ((L61 OR L62 OR L63 OR L64
 OR L65 OR L66))
 L73 64 SEA ABB=ON PLU=ON L54 AND ((L61 OR L62 OR L63 OR L64
 OR L65 OR L66))
 L74 56395 SEA ABB=ON PLU=ON L38
 L75 3185 SEA ABB=ON PLU=ON L39
 L76 144447 SEA ABB=ON PLU=ON L40
 L77 10203 SEA ABB=ON PLU=ON L41
 L78 387 SEA ABB=ON PLU=ON L54 AND ((L74 OR L75 OR L76 OR
 L77) OR ?UREYLEN? OR ?URETHANYLBIURETYL? OR ?URETHAN?(A
)?BIURIETYL? OR ?GUANIDIN? OR ?CARBODIIMID?)
 L79 328 SEA ABB=ON PLU=ON L54 AND ((L74 OR L75 OR L76 OR
 L77))
 L80 113402 SEA ABB=ON PLU=ON FIBER?/SC,SX
 L81 0 SEA ABB=ON PLU=ON L67 AND ((L61 OR L62 OR L63 OR L64
 OR L65 OR L66))
 L82 3 SEA ABB=ON PLU=ON L67 AND ((L74 OR L75 OR L76 OR
 L77) OR ?UREYLEN? OR ?URETHANYLBIURETYL? OR ?URETHAN?(A
)?BIURIETYL? OR ?GUANIDIN? OR ?CARBODIIMID?)
 L83 1 SEA ABB=ON PLU=ON L1 AND L10
 L84 557 SEA ABB=ON PLU=ON L80 AND L56
 L85 8 SEA ABB=ON PLU=ON L80 AND L57
 L86 140 SEA ABB=ON PLU=ON L60 OR L68
 L87 8 SEA ABB=ON PLU=ON L86 AND L80
 L88 270766 SEA ABB=ON PLU=ON COAT?/SC,SX
 L89 5 SEA ABB=ON PLU=ON L86 AND L88
 L90 2063 SEA ABB=ON PLU=ON L56 AND L88
 L91 85 SEA ABB=ON PLU=ON L90 AND L80
 E COATINGS/CT
 L92 7724 SEA ABB=ON PLU=ON COATINGS/CT
 E COATING PROCESS/CT
 L93 125107 SEA ABB=ON PLU=ON COATING PROCESS/CT
 L94 271789 SEA ABB=ON PLU=ON COATING MATERIALS/CT
 E COATING MATERIALS/CT
 L95 2026 SEA ABB=ON PLU=ON L56 AND ((L92 OR L93 OR L94))
 L96 21863 SEA ABB=ON PLU=ON ANTISOIL? OR (ANTI OR REPEL? OR
 PREVENT? STOP?) (A) (SOIL? OR DIRT? OR DUST? OR WATER?)

OR OIL?)
L97 1931 SEA ABB=ON PLU=ON L96 AND L56
L98 707 SEA ABB=ON PLU=ON L95 AND L97
L99 3541 SEA ABB=ON PLU=ON ANTISOIL? OR ANTI(A)SOIL?
L100 256 SEA ABB=ON PLU=ON L56 AND L99
L101 1001477 SEA ABB=ON PLU=ON FIBER? OR FIBR?
L102 47 SEA ABB=ON PLU=ON L101 AND L100
L103 301171 SEA ABB=ON PLU=ON TEXTIL?/SC,SX
L104 99 SEA ABB=ON PLU=ON L56 AND L88 AND (L103 OR L80)
L105 1 SEA ABB=ON PLU=ON L67 AND L88 AND (L103 OR L80)
D SCAN
L106 QUE ABB=ON PLU=ON FABRIC? OR TEXTILE? OR CLOTH? OR
GARMENT? OR NAPER OR DRAPER OR WEAV? OR WOVE? OR WEFT?
OR WEB? OR SPIN? OR SPUN? OR FIBER? OR FIBRE# OR NET
OR NETTING?
L107 147 SEA ABB=ON PLU=ON L106 AND L98
L108 5 SEA ABB=ON PLU=ON L78 AND L107
L109 5 SEA ABB=ON PLU=ON L73 AND L107
L110 1 SEA ABB=ON PLU=ON L67 AND L107
L111 96 SEA ABB=ON PLU=ON L104 AND L106
L112 66 SEA ABB=ON PLU=ON L111 AND L96
L113 15 SEA ABB=ON PLU=ON L111 AND L99
L114 46 SEA ABB=ON PLU=ON L55 OR L70 OR L71 OR L82 OR L85 OR
L87 OR L89 OR L105 OR (L108 OR L109 OR L110)
L115 1 SEA ABB=ON PLU=ON L1 AND L114
L116 57 SEA ABB=ON PLU=ON L114 OR L113
L117 11 SEA ABB=ON PLU=ON L116 NOT L114
D QUE STAT
D QUE STAT L114

=> => d que stat l114
L2 13 SEA FILE=REGISTRY ABB=ON PLU=ON (104559-01-5/BI OR
112-92-5/BI OR 112-96-9/BI OR 1344-28-1/BI OR 25038-54-
4/BI OR 25085-53-4/BI OR 25685-29-4/BI OR 306997-46-6/B
I OR 32131-17-2/BI OR 53200-31-0/BI OR 7631-86-9/BI OR
852161-27-4/BI OR 9003-39-8/BI)
L3 SCR 1918 OR 1838
L4 STR
C~~C F~~Ak~~CF3
1 2 3 4 5

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS LIN SAT AT 4
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M3-X7 C AT 4

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE
L5 29911 SEA FILE=REGISTRY SSS FUL L4 NOT L3
L6 SCR 1918 OR 1838
L7 STR
C~~C F~~Ak~~CF3
1 2 3 4 5

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS LIN SAT AT 4
DEFAULT ECLEVEL IS LIMITED

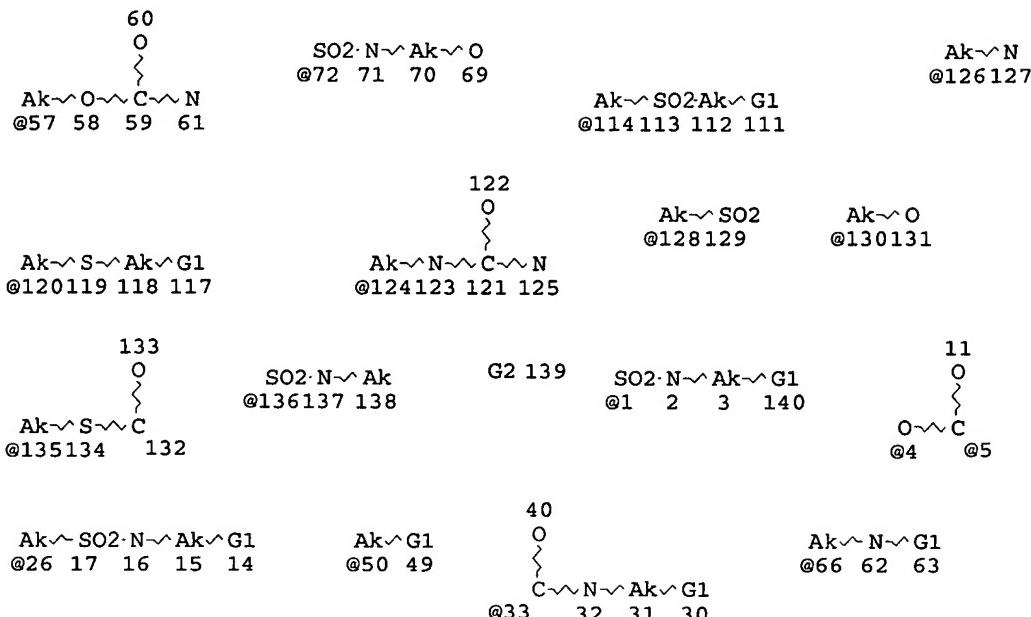
ECOUNT IS M3-X7 C AT 4

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L8 (29911) SEA FILE=REGISTRY SSS FUL L7 NOT L6
L9 STR



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$Ak \sim O \sim Ak \sim G1$	$Ak \sim SO_2 \sim Ak \sim G1$	$Ak \sim S \sim Ak \sim G1$
$@78 \quad 77 \quad 76 \quad 75$	$@85 \quad 86 \quad 87 \quad 88$	$@91 \quad 92 \quad 93 \quad 94$

Page 2-A

VAR G1=4/5

VAR G2=57/72/114/126/120/124/128/130/135/136/1/26/50/33/66/78/85/91

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 11
 CONNECT IS E1 RC AT 40
 CONNECT IS E1 RC AT 60
 CONNECT IS E2 RC AT 92
 CONNECT IS E2 RC AT 119
 CONNECT IS E1 RC AT 122
 CONNECT IS E1 RC AT 133
 CONNECT IS E2 RC AT 134
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 70

STEREO ATTRIBUTES: NONE

L10 26835 SEA FILE=REGISTRY SUB=L8 SSS FUL L9
 L11 SCR 1918 OR 1838
 L12 STR

$C \sim C$	$F \sim Ak \sim CF3$
1 2	3 4 5

NODE ATTRIBUTES:

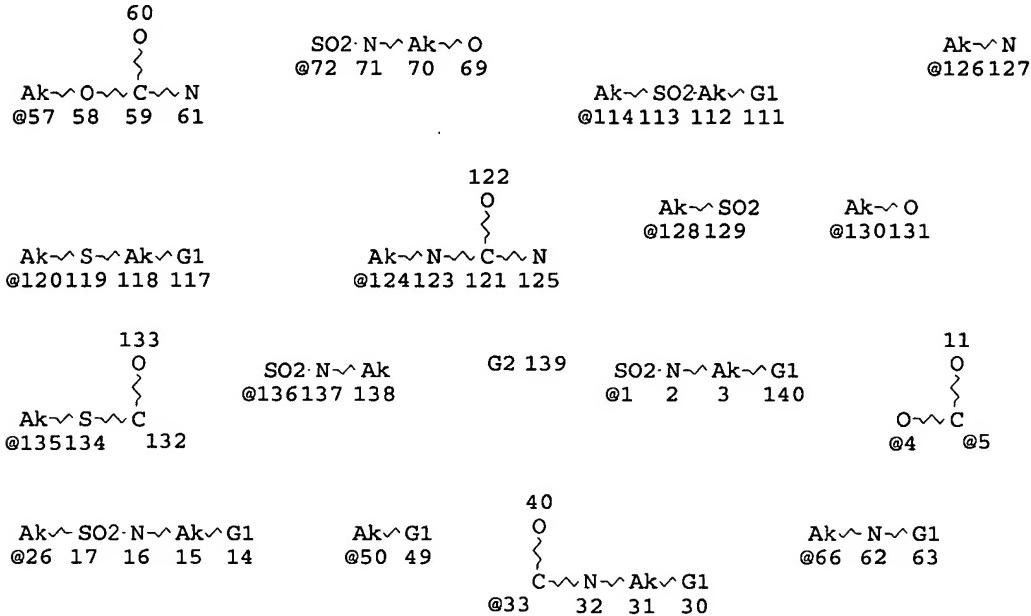
DEFAULT MLEVEL IS ATOM
 GGCAT IS LIN SAT AT 4
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M3-X7 C AT 4

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L13 (29911)SEA FILE=REGISTRY SSS FUL L12 NOT L11
 L14 STR



Page 1-A

$\text{Ak} \sim \text{O} \sim \text{Ak} \sim \text{G1}$ $\text{Ak} \sim \text{SO}_2 \text{Ak} \sim \text{G1}$ $\text{Ak} \sim \text{S} \sim \text{Ak} \sim \text{G1}$
 @78 77 76 75 @85 86 87 88 @91 92 93 94

Page 2-A

VAR G1=4/5

VAR G2=57/72/114/126/120/124/128/130/135/136/1/26/50/33/66/78/85/91

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 11
 CONNECT IS E1 RC AT 40
 CONNECT IS E1 RC AT 60
 CONNECT IS E2 RC AT 92
 CONNECT IS E2 RC AT 119
 CONNECT IS E1 RC AT 122
 CONNECT IS E1 RC AT 133
 CONNECT IS E2 RC AT 134
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 70

STEREO ATTRIBUTES: NONE
 L15 (26835)SEA FILE=REGISTRY SUB=L13 SSS FUL L14

L16 STR

N~~C~~N
1 2 3

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

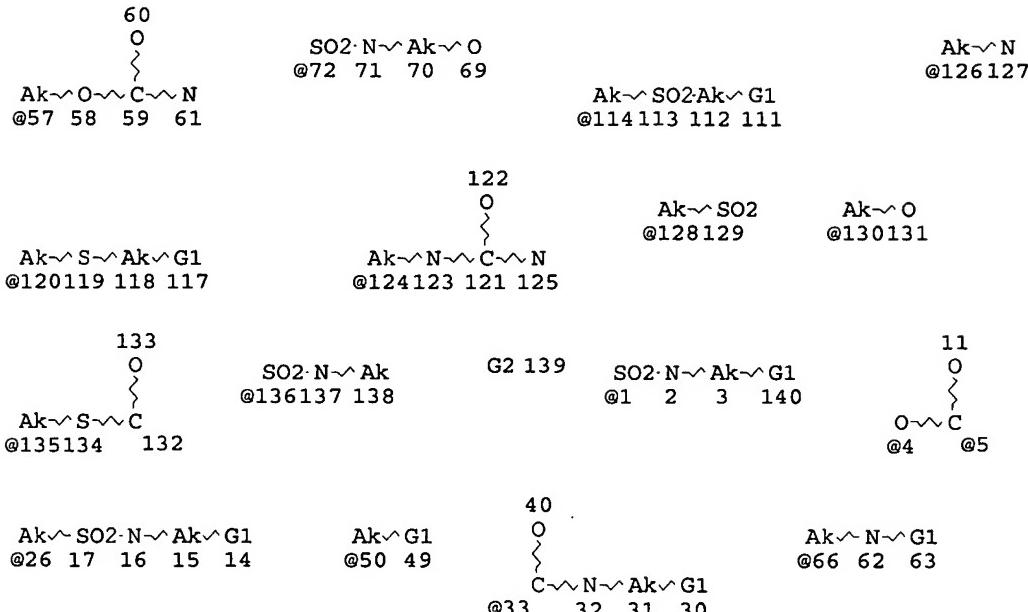
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE
L17 715 SEA FILE=REGISTRY SUB=L15 SSS FUL L16
L18 SCR 1918 OR 1838
L19 STR
C~~C F~~Ak~~CF3
1 2 3 4 5

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS LIN SAT AT 4
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M3-X7 C AT 4

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE
L20 (29911)SEA FILE=REGISTRY SSS FUL L19 NOT L18
L21 STR



Page 1-A

Ak~~O~~Ak~~G1 Ak~~SO2Ak~~G1 Ak~~S~~Ak~~G1
@78 77 76 75 @85 86 87 88 @91 92 93 94

Page 2-A

• VAR G1=4/5
 VAR G2=57/72/114/126/120/124/128/130/135/136/1/26/50/33/66/78/85/91
 NODE ATTRIBUTES:
 CONNECT IS E1 RC AT 11
 CONNECT IS E1 RC AT 40
 CONNECT IS E1 RC AT 60
 CONNECT IS E2 RC AT 92
 CONNECT IS E2 RC AT 119
 CONNECT IS E1 RC AT 122
 CONNECT IS E1 RC AT 133
 CONNECT IS E2 RC AT 134
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 70

STEREO ATTRIBUTES: NONE
 L22 (26835) SEA FILE=REGISTRY SUB=L20 SSS FUL L21
 L23 STR

N=C=O
 1 2 3

NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE
 L24 4147 SEA FILE=REGISTRY SUB=L22 SSS FUL L23
 L26 2 SEA FILE=REGISTRY ABB=ON PLU=ON L10 AND L2
 L34 STR

C=C~A~Ak
 1 2 3 4

NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M12-X100 C AT 4

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE
 L36 174 SEA FILE=REGISTRY SUB=L10 SSS FUL L34
 L37 20 SEA FILE=REGISTRY ABB=ON PLU=ON L36 AND 2/NC
 L38 1024 SEA FILE=REGISTRY ABB=ON PLU=ON ?URETHAN?/CNS
 L39 1028 SEA FILE=REGISTRY ABB=ON PLU=ON ?UREYL?/CNS
 L40 53690 SEA FILE=REGISTRY ABB=ON PLU=ON ?GUANIDIN?/CNS
 L41 674 SEA FILE=REGISTRY ABB=ON PLU=ON ?CARBODIIMID?/CNS
 L43 5 SEA FILE=REGISTRY ABB=ON PLU=ON L5 AND (L38 OR L39
 OR L40 OR L41)
 L45 1 SEA FILE=REGISTRY ABB=ON PLU=ON 104559-01-5/RN
 L46 1 SEA FILE=REGISTRY ABB=ON PLU=ON 852161-27-4/RN
 L47 1 SEA FILE=REGISTRY ABB=ON PLU=ON 112-92-5/RN
 L48 1 SEA FILE=REGISTRY ABB=ON PLU=ON 53200-31-0/RN
 L49 1 SEA FILE=REGISTRY ABB=ON PLU=ON 306997-46-6/RN
 L50 1 SEA FILE=REGISTRY ABB=ON PLU=ON 112-96-9/RN
 L54 23393 SEA FILE=HCAPLUS ABB=ON PLU=ON L5

L55 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L26
 L56 18293 SEA FILE=HCAPLUS ABB=ON PLU=ON L10
 L57 238 SEA FILE=HCAPLUS ABB=ON PLU=ON L17
 L58 1833 SEA FILE=HCAPLUS ABB=ON PLU=ON L24
 L59 413 SEA FILE=REGISTRY ABB=ON PLU=ON L17 AND L24
 L60 121 SEA FILE=HCAPLUS ABB=ON PLU=ON L59
 L61 165 SEA FILE=HCAPLUS ABB=ON PLU=ON L45/D OR L45/DP
 L62 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L46/D OR L46/DP
 L63 509 SEA FILE=HCAPLUS ABB=ON PLU=ON L47/D OR L47/DP
 L64 77 SEA FILE=HCAPLUS ABB=ON PLU=ON L48/D OR L48/DP
 L65 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L49/D OR L49/DP
 L66 299 SEA FILE=HCAPLUS ABB=ON PLU=ON L50/D OR L50/DP
 L67 90 SEA FILE=HCAPLUS ABB=ON PLU=ON L36
 L68 140 SEA FILE=HCAPLUS ABB=ON PLU=ON L57 AND L58
 L70 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L37
 L71 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L43
 L73 64 SEA FILE=HCAPLUS ABB=ON PLU=ON L54 AND ((L61 OR L62
 OR L63 OR L64 OR L65 OR L66))
 L74 56395 SEA FILE=HCAPLUS ABB=ON PLU=ON L38
 L75 3185 SEA FILE=HCAPLUS ABB=ON PLU=ON L39
 L76 144447 SEA FILE=HCAPLUS ABB=ON PLU=ON L40
 L77 10203 SEA FILE=HCAPLUS ABB=ON PLU=ON L41
 L78 387 SEA FILE=HCAPLUS ABB=ON PLU=ON L54 AND ((L74 OR L75
 OR L76 OR L77) OR ?UREYLEN? OR ?URETHANYLBIURETYL? OR
 ?URETHAN?(A)?BIURIETYL? OR ?GUANIDIN? OR ?CARBODIIMID?)
 L80 113402 SEA FILE=HCAPLUS ABB=ON PLU=ON FIBER?/SC,SX
 L82 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L67 AND ((L74 OR L75
 OR L76 OR L77) OR ?UREYLEN? OR ?URETHANYLBIURETYL? OR
 ?URETHAN?(A)?BIURIETYL? OR ?GUANIDIN? OR ?CARBODIIMID?)
 L85 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 AND L57
 L86 140 SEA FILE=HCAPLUS ABB=ON PLU=ON L60 OR L68
 L87 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L86 AND L80
 L88 270766 SEA FILE=HCAPLUS ABB=ON PLU=ON COAT?/SC,SX
 L89 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L86 AND L88
 L92 7724 SEA FILE=HCAPLUS ABB=ON PLU=ON COATINGS/CT
 L93 125107 SEA FILE=HCAPLUS ABB=ON PLU=ON COATING PROCESS/CT
 L94 271789 SEA FILE=HCAPLUS ABB=ON PLU=ON COATING MATERIALS/CT
 L95 2026 SEA FILE=HCAPLUS ABB=ON PLU=ON L56 AND ((L92 OR L93
 OR L94))
 L96 21863 SEA FILE=HCAPLUS ABB=ON PLU=ON ANTIISOIL? OR (ANTI OR
 REPEL? OR PREVENT? STOP?) (A) (SOIL? OR DIRT? OR DUST?
 OR WATER? OR OIL?)
 L97 1931 SEA FILE=HCAPLUS ABB=ON PLU=ON L96 AND L56
 L98 707 SEA FILE=HCAPLUS ABB=ON PLU=ON L95 AND L97
 L103 301171 SEA FILE=HCAPLUS ABB=ON PLU=ON TEXTIL?/SC,SX
 L105 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L67 AND L88 AND (L103
 OR L80)
 L106 QUE ABB=ON PLU=ON FABRIC? OR TEXTILE? OR CLOTH? OR G
 ARMENT? OR NAPER OR DRAPER OR WEAV? OR WOVE? OR WEFT? O
 R WEB? OR SPIN? OR SPUN? OR FIBER? OR FIBRE# OR NET OR
 NETTING?
 L107 147 SEA FILE=HCAPLUS ABB=ON PLU=ON L106 AND L98
 L108 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L78 AND L107
 L109 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L73 AND L107
 L110 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L67 AND L107
 L114 46 SEA FILE=HCAPLUS ABB=ON PLU=ON L55 OR L70 OR L71 OR
 L82 OR L85 OR L87 OR L89 OR L105 OR (L108 OR L109 OR
 L110)

=> d 1114 1-46 ibib abs hitstr hitind

L114 ANSWER 1 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:735130 HCAPLUS

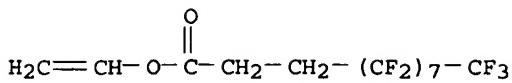
DOCUMENT NUMBER: 143:195199
 TITLE: Treatment comprising water- and oil-repellent agent, treatment composition, and exhaust application to carpet
 INVENTOR(S): Kubota, Kouji; Kanbara, Takahito; Usugaya, Mitsuhiro
 PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan
 SOURCE: U.S. Pat. Appl. Publ., 16 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2005175811	A1	20050811	US 2004-772427	2004 0206
PRIORITY APPLN. INFO.: US 2004-772427				2004 0206

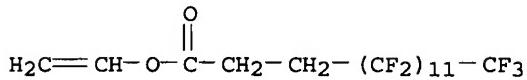
- AB A textile having high F adhesion rate, and excellent H₂O- and oil-repellency can be obtained by (1) preparing a treatment liquid comprising a H₂O- and oil-repellent agent which comprises ≥1 F-containing compound selected from F-containing polymer or a F-containing low mol. weight compound, (2) adjusting pH of the treatment liquid to ≤7, (3) applying the treatment liquid to a textile, (4) treating the textile with steam, and (5) washing the textile with H₂O and dehydrating the textile, where the treatment liquid comprises a water-soluble cationic polymer.
 CF₃CF₂(CF₂CF₂)_nCH₂CH₂COOCH:CH₂ (a mixture of compds.; average of n is 3.1) (150 g), 2-ethylhexyl acrylate (40 g), 3-chloro-2-hydroxypropyl methacrylate (2 g), n-lauryl mercaptan (1 g), polyoxyethylene lauryl ether (20 g), dialkyldimethylammonium chloride (10 g), tripropylene glycol (75 g) and ion exchanged water (480 g) were mixed, heated to 60°, homogenized by a high pressure homogenizer, the emulsified liquid was mixed with vinyl chloride monomer (70 g) having the purity of 99%, and 2,2'-azobis(2-amidinopropane) dihydrochloride (2 g), and copolymerd. at 60° for 8 h. A carpet was treated with polyallylamine hydrochloride and this fluoropolymer.
- IT 861822-42-6P 861822-43-7P 861822-44-8P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (water- and oil-repellent agent combination of water-soluble cationic polymer and fluoropolymer for treating carpet in an exhaust process)
- RN 861822-42-6 HCPLUS
 CN Pentadecanoic acid, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,15-pentacosfluoro-, ethenyl ester, polymer with chloroethene, 3-chloro-2-hydroxypropyl 2-methyl-2-propenoate, ethenyl 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,13-heneicosfluorotridecanoate, ethenyl 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoroundecanoate and 2-ethylhexyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

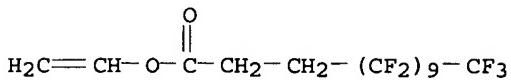
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CMF C13 H7 F17 O2



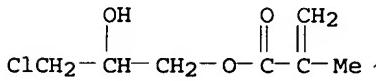
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CRN 73016-31-6
CMF C17 H7 F25 O2

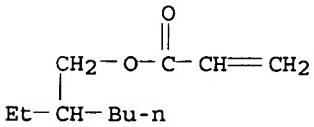
CM 3

CRN 73016-30-5
CMF C15 H7 F21 O2

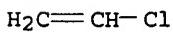
CM 4

CRN 13159-52-9
CMF C7 H11 Cl O3

CM 5

CRN 103-11-7
CMF C11 H20 O2

CM 6

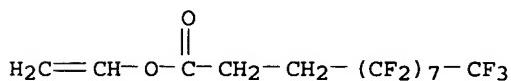
CRN 75-01-4
CMF C2 H3 Cl

RN 861822-43-7 HCPLUS

CN Pentadecanoic acid, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,15-pentacosafuoro-, ethenyl ester, polymer with chloroethene, 3-chloro-2-hydroxypropyl 2-methyl-2-propenoate, ethenyl 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13- heneicosafuorotridecanoate, ethenyl 4,4,5,5,6,6,7,7,8,8,9,9,10,10 ,11,11,11-heptadecafluoroundecanoate and octadecyl 2-propenoate (9CI) (CA INDEX NAME)

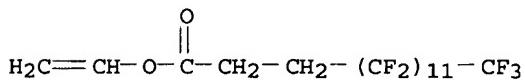
CM 1

CRN 73016-32-7
CMF C13 H7 F17 O2



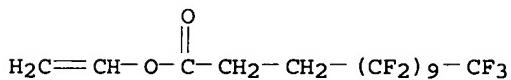
CM 2

CRN 73016-31-6
CMF C17 H7 F25 O2



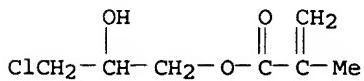
CM 3

CRN 73016-30-5
CMF C15 H7 F21 O2



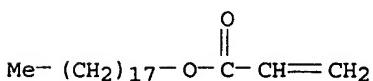
CM 4

CRN 13159-52-9
CMF C7 H11 Cl O3

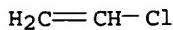


CM 5

CRN 4813-57-4
CMF C21 H40 O2



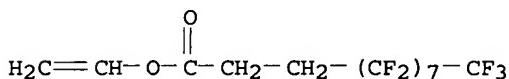
CM 6

CRN 75-01-4
CMF C2 H3 Cl

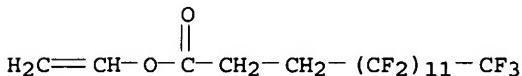
RN 861822-44-8 HCPLUS

CN Pentadecanoic acid, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,1
3,14,14,15,15-pentacosfluoro-, ethenyl ester, polymer with
chloroethene, ethenyl 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13
,13,13-heneicosfluorotridecanoate and ethenyl
4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoroundecanoate
(9CI) (CA INDEX NAME)

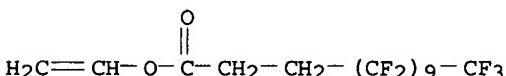
CM 1

CRN 73016-32-7
CMF C13 H7 F17 O2

CM 2

CRN 73016-31-6
CMF C17 H7 F25 O2

CM 3

CRN 73016-30-5
CMF C15 H7 F21 O2

CM 4

CRN 75-01-4
CMF C2 H3 ClIT 26591-12-8, Dicyandiamide-formaldehyde resin
RL: POF (Polymer in formulation); TEM (Technical or engineered

material use); USES (Uses)

(water- and oil-repellent agent combination of water-soluble cationic polymer and fluoropolymer for treating carpet in an exhaust process)

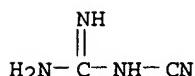
RN 26591-12-8 HCAPLUS

CN Guanidine, cyano-, polymer with formaldehyde (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 461-58-5

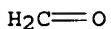
CMF C2 H4 N4



CM 2

CRN 50-00-0

CMF C H2 O



IC ICM B05D003-02

ICS B32B033-00

INCL 428096000; 427384000; 427377000; 428097000

CC 40-5 (Textiles and Fibers)

IT 861822-42-6P 861822-43-7P 861822-44-8P

861822-45-9P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(water- and oil-repellent agent combination of water-soluble cationic polymer and fluoropolymer for treating carpet in an exhaust process)

IT 9002-98-6 9003-05-8D, Polyacrylamide, cationic 9003-08-1, Melamine-formaldehyde resin 9005-25-8D, Starch, cationic, uses 9011-05-6, Formaldehyde-urea copolymer 26591-12-8, Dicyandiamide-formaldehyde resin 71550-12-4, Polyallylamine hydrochloride

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(water- and oil-repellent agent combination of water-soluble cationic polymer and fluoropolymer for treating carpet in an exhaust process)

L114 ANSWER 2 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:573248 HCAPLUS

DOCUMENT NUMBER: 143:172519

TITLE: N,N'-Bis(1H,1H,2H,2H- perfluoroctyl)carbodiimide

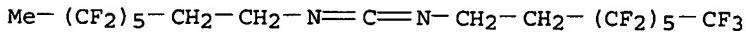
AUTHOR(S): Aizpurua, Jesus M.; Palomo, Claudio; Loinaz, Iraida

CORPORATE SOURCE: Departamento de Quimica Organic-I, Universidad del Pais Vasco, San Sebastian, 20018, Spain

SOURCE: Handbook of Fluorous Chemistry (2004), 457-459. Editor(s): Gladysz, John A.; Curran, Dennis P.; Horvath, Istvan T. Wiley-VCH Verlag GmbH & Co. KGaA: Weinheim, Germany.

CODEN: 69GYXQ; ISBN: 3-527-30617-X

DOCUMENT TYPE: Conference
 LANGUAGE: English
 AB C6H13CH2CH2NH2, prepared in 88% yield from C6H13CH2CH2I, was acylated with triphosgene to give 91% (C6H13CH2CH2NH)2CO, which was treated with Ph3PBr2 and Et3N in C6H14 to give 99% title compound
 IT 860804-24-6P, N,N'-Bis(1H,1H,2H,2H-perfluoroctyl)carbodiimide
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation from 1H,1H,2H,2H-perfluoroctyl iodide)
 RN 860804-24-6 HCPLUS
 CN 1-Octanamine, N-[(3,3,4,4,5,5,6,6,7,7-decafluoroctyl)carbonimidoyl]-3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro- (9CI) (CA INDEX NAME)



CC 23-4 (Aliphatic Compounds)
 IT 860804-24-6P, N,N'-Bis(1H,1H,2H,2H-perfluoroctyl)carbodiimide
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation from 1H,1H,2H,2H-perfluoroctyl iodide)
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L114 ANSWER 3 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:570956 HCPLUS
 DOCUMENT NUMBER: 143:99012
 TITLE: Water-repellent coating film having low refractive index
 INVENTOR(S): Motoyama, Kenichi; Tani, Yoshihiro
 PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 34 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
WO 2005059050	A1	20050630	WO 2004-JP18921	2004

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
 CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
 ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
 KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
 MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
 PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
 TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
 ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
 CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT,
 LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,
 CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: JP 2003-421057 A
 2003
 1218

AB A coating film having a refractive index of 1.28-1.41 and a water contact angle of 90-115° is formed by preparing a reaction

mixture containing Si(OR)₄ (R = C₁₋₅ alkyl), CF₃(CF₂)_nCH₂CH₂Si(OR₁)₃ (R₁ = C₁₋₅ alkyl; n = 0-12), H₂NCONH(CH₂)_mSi(OR₂)₃ (R₂ = C₁₋₅ alkyl; m = 1-5), an alc. R₃CH₂OH [R₃ = H, (un)substituted C₁₋₁₂ alkyl], and oxalic acid at a specific ratio; forming a solution of a polysiloxane by heating the reaction mixture at 40-180° in the absence of water; applying a coating liquid containing the solution to the surface of a base; and heat curing the coating film at 40-450° to closely adhere the coating film to the base surface. The coating is useful for forming a scratch- and soiling-resistant antireflective film on a glass substrate.

IT 856215-25-3, Tetraethoxysilane-3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyltrimethoxysilane-γ-ureidopropyltriethoxysilane copolymer
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(water-repellent coating film having low refractive index and high hardness)

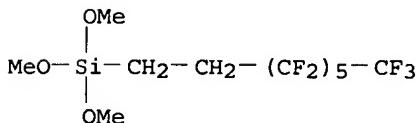
RN 856215-25-3 HCPLUS

CN Silicic acid (H₄SiO₄), tetraethyl ester, polymer with [3-(triethoxysilyl)propyl]urea and trimethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyl)silane (9CI) (CA INDEX NAME)

CM 1

CRN 85857-16-5

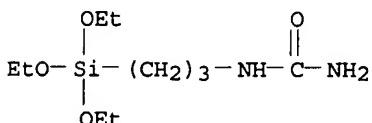
CMF C₁₁ H₁₃ F₁₃ O₃ Si



CM 2

CRN 23779-32-0

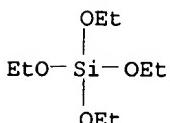
CMF C₁₀ H₂₄ N₂ O₄ Si



CM 3

CRN 78-10-4

CMF C₈ H₂₀ O₄ Si



IC ICM C09D183-04

ICS C09D005-16

CC 42-10 (Coatings, Inks, and Related Products)

IT 856215-25-3, Tetraethoxysilane-3,3,4,4,5,5,6,6,7,7,8,8,8-
 tridecafluoroctyltrimethoxysilane- γ -
 ureidopropyltriethoxysilane copolymer 856215-26-4,
 γ -Aminopropyltriethoxysilane- γ -
 glycidoxypropyltrimethoxysilane-tetraethoxysilane-
 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyltrimethoxysilane-
 γ -ureidopropyltriethoxysilane copolymer
 RL: PRP (Properties); TEM (Technical or engineered material use);
 USES (Uses)
 (water-repellent coating film having low refractive index and
 high hardness)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L114 ANSWER 4 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:564725 HCPLUS
 DOCUMENT NUMBER: 143:79779
 TITLE: Coating film having low refractive index and
 large water contact angle
 INVENTOR(S): Tani, Yoshihiro; Motoyama, Kenichi
 PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 27 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
WO 2005059051	A1	20050630	WO 2004-JP18922	2004 1217

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
 CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
 ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
 KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
 MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
 PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
 TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
 ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
 CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT,
 LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,
 CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: JP 2003-421828 A
 2003
 1219

AB The coating film, having a refractive index of 1.28-1.38 and a
 water contact angle of 90-115°, is formed by preparing a solution
 of a polysiloxane by heating a reaction mixture containing Si(OR)4 (R =
 C1-5 alkyl), (R1O)3SiCH2CH2(CF2)nCH2CH2Si(OR1)3 (R1 = C1-5 alkyl;
 n = 1-13), an alc. R2CH2OH [R2 = H, (un)substituted C1-12 alkyl],
 and oxalic acid at a specific ratio at 50-180° in the
 absence of water; applying a coating liquid containing the solution to the
 surface of a base; and curing coating film by heating at
 80-450° to closely adhere the coating film to the base
 surface. The coating is useful for forming a scratch- and
 soiling-resistant antireflective film on a glass substrate.

IT 856009-44-4
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coating film having low refractive index and large water
 contact angle)

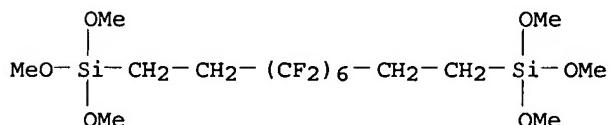
RN 856009-44-4 HCAPLUS

CN Silicic acid (H_4SiO_4), tetraethyl ester, polymer with
6,6,7,7,8,8,9,9,10,10,11,11-dodecafluoro-3,3,14,14-tetramethoxy-
2,15-dioxa-3,14-disilahexadecane, [3-(triethoxysilyl)propyl]urea
and trimethoxy(3,3,4,4,5,5,6,6,7,7,8,8-tridecafluorooctyl)silane
(9CI) (CA INDEX NAME)

CM 1

CRN 94403-04-0

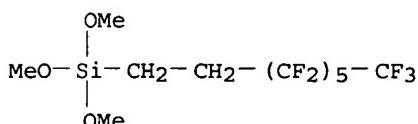
CMF C16 H26 F12 O6 Si2



CM 2

CRN 85857-16-5

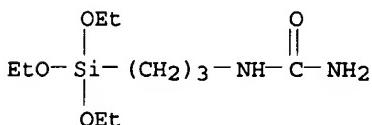
CMF C11 H13 F13 O3 Si



CM 3

CRN 23779-32-0

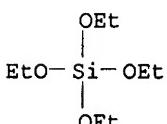
CMF C10 H24 N2 O4 Si



CM 4

CRN 78-10-4

CMF C8 H20 O4 Si



IC ICM C09D183-10

ICS C09D005-16

CC 42-10 (Coatings, Inks, and Related Products)

IT 64-17-5, Ethanol, uses 67-56-1, Methanol, uses 404575-06-0

856009-42-2 856009-43-3 856009-44-4
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coating film having low refractive index and large water
 contact angle)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L114 ANSWER 5 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:453824 HCAPLUS
 DOCUMENT NUMBER: 142:483562
 TITLE: Fluorochemical oligomeric compositions with
 good antisoiling for fibrous
 substrates
 INVENTOR(S): Jariwala, Chetan P.; Coppens, Dirk M.;
 Godefroidt, Frank A. H. M.
 PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
 SOURCE: U.S. Pat. Appl. Publ., 17 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
US 2005113508	A1	20050526	US 2003-723510	2003 1126
WO 2005054567	A1	20050616	WO 2004-US35723	2004 1028

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
 CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
 ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
 KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
 MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
 PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
 TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
 ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
 CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
 MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,
 CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-723510 A
 2003
 1126

AB Title compns. comprising a fluorochem. oligomeric component and an
 antisoiling component desirable antisoiling
 properties, as well as oil, water and stain repellency to fibrous
 substrates. Thus, 411.0 g 2-[methyl[(nonafluorobutyl)sulfonyl]ami
 no]ethyl acrylate and 19.5 g 2-mercaptoethanol were reacted in the
 presence of V 59 (2,2'-azobis[2-methyl-butanenitrile]) at
 65° for 15 h, 0.0820 mol of the resulting compound was
 reacted with 0.082 mol octadecylisocyanate at 85° for 17 h,
 mixed with sodium dodecylbenzenesulfonate to give an emulsion with
 solid content 30%, which was sprayed on a carpet and dried at
 120°, showing good water and oil
 repellency and antisoiling property.

IT 104559-01-5DP, Desmodur N 3300, reaction products with
 isocyanates and perfluorooligomers having hydroxy groups
 852161-27-4DP, reaction products with isocyanates and
 alcs.

RL: IMF (Industrial manufacture); POF (Polymer in formulation);

TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)

(blend with acrylic polymer; fluorochem. oligomeric compns.
 with good antisoiling for fibrous substrates)

RN 104559-01-5 HCPLUS

CN Desmodur N 3300 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 852161-27-4 HCPLUS

CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 2-mercaptopropanoic acid and octadecyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2

CMF C2 H6 O S

HO—CH₂—CH₂—SH

CM 2

CRN 425664-29-5

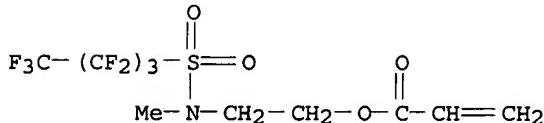
CMF (C₂₁ H₄₀ O₂ . C₁₀ H₁₀ F₉ N O₄ S)x

CCI PMS

CM 3

CRN 67584-55-8

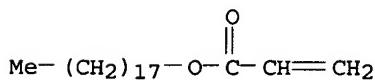
CMF C₁₀ H₁₀ F₉ N O₄ S



CM 4

CRN 4813-57-4

CMF C₂₁ H₄₀ O₂

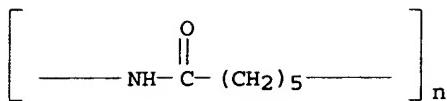


IT 25038-54-4, Polyamide 6, uses 32131-17-2,
 Polyamide 66, uses

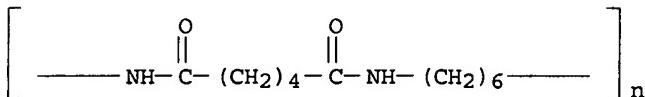
RL: TEM (Technical or engineered material use); USES (Uses)
 (fiber, substrate; fluorochem. oligomeric compns.
 with good antisoiling for fibrous substrates)

RN 25038-54-4 HCPLUS

CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



RN 32131-17-2 HCAPLUS
 CN Poly[imino(1,6-dioxo-1,6-hexanediyl)imino-1,6-hexanediyl] (9CI)
 (CA INDEX NAME)



IT 112-92-5DP, Stearyl alcohol, reaction products with isocyanates and perfluoroooligomers having hydroxy groups
 53200-31-0DP, Desmodur N 100, reaction products with perfluoroooligomers having hydroxy groups and alc.
 306997-46-6DP, reaction products with isocyanates and alc.
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (oligomer, blend with acrylic polymer; fluorochem. oligomeric compns. with good antisoiling for fibrous substrates)

RN 112-92-5 HCAPLUS
 CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)

HO—(CH₂)₁₇—Me

RN 53200-31-0 HCAPLUS
 CN Desmodur N 100 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 306997-46-6 HCAPLUS
 CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 2-mercaptopropanoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2
 CMF C₂ H₆ O S

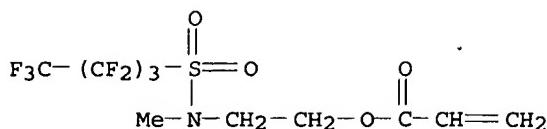
HO—CH₂—CH₂—SH

CM 2

CRN 306997-45-5
 CMF (C₁₀ H₁₀ F₉ N O₄ S)x
 CCI PMS

CM 3

CRN 67584-55-8
 CMF C₁₀ H₁₀ F₉ N O₄ S



IT 112-96-9DP, Octadecylisocyanate, reaction products with perfluorooligomers having hydroxy groups
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (optionally blend with acrylic polymer; fluorochem. oligomeric compns. with good antisoiling for fibrous substrates)
 RN 112-96-9 HCAPLUS
 CN Octadecane, 1-isocyanato- (9CI) (CA INDEX NAME)

OCN-(CH₂)₁₇-Me

IC ICM C08K003-00
 INCL 524556000; 524555000
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 40
 ST fluorochem oligomeric compn antisoiling fibrous substrate; methylnonafluorobutylsulfonylaminooethyl acrylate mercaptoethanol telomer octadecylisocyanate carbamate compn carpet treatment
 IT Polyamide fibers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (6, Zeftron, substrates; fluorochem. oligomeric compns. with good antisoiling for fibrous substrates)
 IT Polyamide fibers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (66, substrates; fluorochem. oligomeric compns. with good antisoiling for fibrous substrates)
 IT Fluoropolymers, uses
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (acrylic, blend with acrylic polymers; fluorochem. oligomeric compns. with good antisoiling for fibrous substrates)
 IT Acrylic polymers, uses
 Aminoplasts
 Silsesquioxanes
 RL: TEM (Technical or engineered material use); USES (Uses)
 (antisoiling agents; fluorochem. oligomeric compns. with good antisoiling for fibrous substrates)
 IT Coating materials
 (antisoiling, water-resistant; fluorochem. oligomeric compns. with good antisoiling for fibrous substrates)
 IT Acrylic polymers, uses
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (fluoroalkyl group-containing, blend with acrylic polymers; fluorochem. oligomeric compns. with good antisoiling for fibrous substrates)
 IT Polyamides, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (fluorochem. oligomeric compns. with good antisoiling for fibrous substrates)
 IT Coating materials
 (oil-resistant, antisoiling-; fluorochem. oligomeric compns. with good antisoiling for fibrous substrates)

- IT Fluoropolymers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (oligomers; fluorochem. oligomeric compns. with good
 antisoiling for fibrous substrates)
- IT Carpets
 Fibrous materials
 Wool
 (substrates; fluorochem. oligomeric compns. with good
 antisoiling for fibrous substrates)
- IT Polypropene fibers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (substrates; fluorochem. oligomeric compns. with good
 antisoiling for fibrous substrates)
- IT Polymers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (water-soluble, antisoiling agents; fluorochem.
 oligomeric compns. with good antisoiling for fibrous
 substrates)
- IT 25685-29-4P, Ethyl methacrylate-methyl methacrylate copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (antisoiling agent, blend with fluorooligomer;
 fluorochem. oligomeric compns. with good antisoiling
 for fibrous substrates)
- IT 104559-01-5DP, Desmodur N 3300, reaction products with
 isocyanates and perfluorooligomers having hydroxy groups
 852161-27-4DP, reaction products with isocyanates and
 alcs.
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (blend with acrylic polymer; fluorochem. oligomeric compns.
 with good antisoiling for fibrous substrates)
- IT 1344-28-1, Alumina, uses 7631-86-9, Silica, uses 9003-39-8,
 Polyvinyl pyrrolidone
 RL: TEM (Technical or engineered material use); USES (Uses)
 (colloidal, antisoiling agent; fluorochem. oligomeric
 compns. with good antisoiling for fibrous substrates)
- IT 25038-54-4, Polyamide 6, uses 25085-53-4, Isotactic
 polypropylene 32131-17-2, Polyamide 66, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (fiber, substrate; fluorochem. oligomeric compns.
 with good antisoiling for fibrous substrates)
- IT 112-92-5DP, Stearyl alcohol, reaction products with
 isocyanates and perfluorooligomers having hydroxy groups
 53200-31-0DP, Desmodur N 100, reaction products with
 perfluorooligomers having hydroxy groups and alcs.
 306997-46-6DP, reaction products with isocyanates and
 alcs.
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (oligomer, blend with acrylic polymer; fluorochem. oligomeric
 compns. with good antisoiling for fibrous substrates)
- IT 112-96-9DP, Octadecylisocyanate, reaction products with
 perfluorooligomers having hydroxy groups
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (optionally blend with acrylic polymer; fluorochem. oligomeric
 compns. with good antisoiling for fibrous substrates)

L114 ANSWER 6 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:120819 HCAPLUS

DOCUMENT NUMBER: 140:165096

TITLE: Fluorinated urethane compounds and

INVENTOR(S) : compositions containing the same
 Yamamoto, Ikuo; Kusumi, Kayo; Yoshioka,
 Takuya; Yamaguchi, Fumihiro

PATENT ASSIGNEE(S) : Daikin Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
WO 2004013089	A1	20040212	WO 2003-JP9903	
				2003 0805
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2493985	AA	20040212	CA 2003-2493985	
				2003 0805
EP 1548001	A1	20050629	EP 2003-766731	
				2003 0805
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.:			JP 2002-228795	A
				2002 0806
			WO 2003-JP9903	W
				2003 0805

AB Fluorinated urethane compds. $[RfA_1(X_1(OH))(Y_1)a-OC(:O)NH]_mI[NHC(:O)OY_2]_n[NHC(:O)O((C_1CH_2)_2X_2O)bR_1]_k$ can impart high water- and oil-repellency, wherein I = a group derived from a polyisocyanate compound by removing the isocyanato groups; Rf = C₂-21 perfluoroalkyl; A₁ = a direct bond or C₁-21 divalent organic group; X₁, X₂ = C₂-5 trivalent, linear or branched aliphatic group; Y₁ = a divalent organic group containing C₀-5, N₀-2, and ≥ 1 hydrogen atom (≥ 1 carbon atom or ≥ 1 nitrogen atom must be present); Y₂ = a monovalent organic group which may have a hydroxyl group; and R₁ = H or C₁-10 alkyl. Thus, 20.1 g 3-perfluoroctyl-1,2-propanediol obtained from 3-perfluoroctyl-1,2-epoxypropane and 7.79 g Sumidur N 3300 were reacted to give 25.3 g hydroxy-containing perfluooctylpropyl substituted hexamethylene diisocyanate isocyanurate, 5 g of which was emulsified in the presence of polyethylene glycol alkyl ether and sodium α -olefinsulfonate, applied on a carpet and heat-cured to give a test piece showing good water and oil repellency and anticontamination.

IT 653600-20-5P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);

PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of fluorinated urethane compds. for compns.)

RN 653600-20-5 HCAPLUS

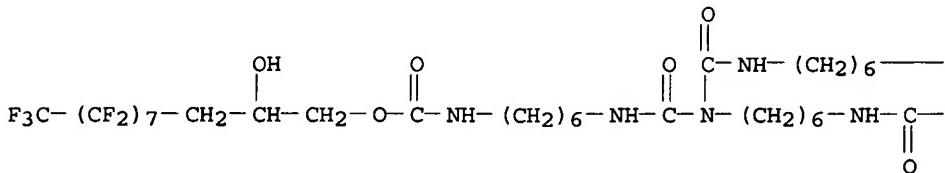
CN 2,9,11,13,20-Pentaazaheneicosanedioic acid, 11-[6-
 [[[4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-
 hydroxyundecyl)oxy]carbonyl]amino]hexyl]-10,12-dioxo-,
 bis(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-
 hydroxyundecyl) ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

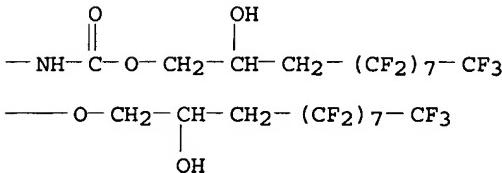
CRN 653600-19-2

CMF C56 H59 F51 N6 O11

PAGE 1-A



PAGE 1-B



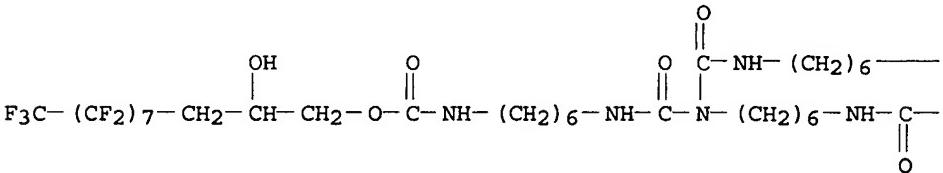
IT 653600-19-2P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of fluorinated urethane compds. for compns.)

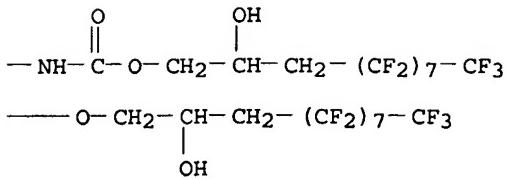
RN 653600-19-2 HCAPLUS

CN 2,9,11,13,20-Pentaazaheneicosanedioic acid, 11-[6-
 [[[4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-
 hydroxyundecyl)oxy]carbonyl]amino]hexyl]-10,12-dioxo-,
 bis(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-
 hydroxyundecyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



- IC ICM C07C275-62
 ICS C09K003-00; C09K003-18; C07D251-34; D06M015-576
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 40
 IT 653600-20-5P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 PRP (Properties); TEM (Technical or engineered material use); PREP
 (Preparation); USES (Uses)
 (preparation of fluorinated urethane compds. for compns.)
 IT 653600-17-OP 653600-19-2P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (preparation of fluorinated urethane compds. for compns.)

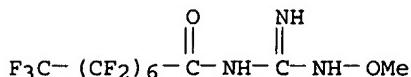
L114 ANSWER 7 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:75007 HCAPLUS
 DOCUMENT NUMBER: 141:225411
 TITLE: Fluorinated heterocyclic compounds: an assay
 on the photochemistry of some fluorinated
 1-oxa-2-azoles: an expedient route to
 fluorinated heterocycles
 AUTHOR(S): Buscemi, Silvestre; Pace, Andrea; Pibiri,
 Ivana; Vivona, Nicolo; Caronna, Tullio
 CORPORATE SOURCE: Dipartimento di Chimica Organica "E. Paterno",
 Universita degli Studi di Palermo, Palermo,
 I-90128, Italy
 SOURCE: Journal of Fluorine Chemistry (2004), 125(2),
 165-173
 CODEN: JFLCAR; ISSN: 0022-1139
 PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 141:225411
 AB Photoinduced heterocyclic rearrangements of O-N bond-containing azoles
 are claimed in the synthesis of target fluorinated heterocyclic
 compds. In this context, the photochem. behavior of some
 fluorinated 1,2,4-oxadiazoles was studied. Irradiations of
 3-amino-5-perfluoroalkyl-1,2,4-oxadiazoles at $\lambda = 313$ nm in
 MeOH gave open-chain products arising from a reaction of the
 nucleophilic solvent with either the 1st formed ring-photolytic
 species or with a nitrilimine moiety generated from it.
 Differently, irradiations in MeOH with the presence of NET₃ (TEA)
 followed competing phototransposition pathways leading to the
 ring-isomers 2-amino-5-perfluoroalkyl-1,3,4-oxadiazoles (major
 component) and the ring degenerate isomers 5-amino-3-
 perfluoroalkyl-1,2,4-oxadiazoles (minor component). However,
 3-amino-5-polyfluorophenyl-1,2,4-oxadiazoles underwent
 ring-photoisomerization into 1,3,4-oxadiazoles when irradiations
 were carried out at $\lambda = 254$ nm. In turn, the irradiation of
 the 3-phenyl-5-perfluoroheptyl-1,2,4-oxadiazole at $\lambda = 254$
 nm in MeOH gave the solvolysis product, but no ring-isomerization
 was observed. Some mechanistic considerations are reported, and some
 applications in the synthesis of target fluorinated
 1,3,4-oxadiazoles are claimed.
 IT 748813-45-8P, N-Perfluoroctanoyl-O-methyl-N'-

hydroxyguanidine

RL: SPN (Synthetic preparation); PREP (Preparation)
 (photochem. of fluorinated 1,2,4-oxadiazoles including
 methanolysis and ring rearrangement)

RN 748813-45-8 HCPLUS

CN Octanamide, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-N-[imino(methoxyamino)methyl] - (9CI) (CA INDEX NAME)

CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 74

IT 361448-20-6P, [5-(2,3,5,6-Tetrafluoro-4-methoxyphenyl)-1,2,4-oxadiazol-3-yl]amine 500129-59-9P, [3-(Pentadecafluoroheptyl)-1,2,4-oxadiazol-5-yl]amine 748813-44-7P, N-Pentadecafluoroctanoyl-N'-methoxybenzenecarboximidamide 748813-45-8P, N-Perfluorooctanoyl-O-methyl-N'-hydroxyguanidine 748813-46-9P, N-Perfluorobutanoyl-O-methyl-N'-hydroxyguanidine 748813-47-0P 748813-48-1P 748813-49-2P, [5-(Heptafluoropropyl)-1,3,4-oxadiazol-2-yl]amine 748813-50-5P, [3-(Heptafluoropropyl)-1,2,4-oxadiazol-5-yl]amine 748813-51-6P, [5-(2,3,4,5-Tetrafluorophenyl)-1,3,4-oxadiazol-2-yl]amine 748813-52-7P, [5-(Pentafluorophenyl)-1,3,4-oxadiazol-2-yl]amine 748813-53-8P, [5-(2,3,5-Trifluoro-4-methoxyphenyl)-1,2,4-oxadiazol-3-yl]amine

RL: SPN (Synthetic preparation); PREP (Preparation)
 (photochem. of fluorinated 1,2,4-oxadiazoles including
 methanolysis and ring rearrangement)

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L114 ANSWER 8 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:951257 HCPLUS

DOCUMENT NUMBER: 140:6144

TITLE: Antisoiling oil-

repellent water-
 repellent fluorochemical compositions
 for treatment of fibrous substrates

INVENTOR(S): Audenaert, Frans A.; Dams, Rudolf J.;
 Buckanin, Richard S.; Flynn, Richard M.;
 Vitcak, Daniel R.; Elsbernd, Cheryl L. S.;
 Jariwala, Chetan P.; McAlister, E. Steven;
 Vander Elst, Pierre J.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 66 pp.
 CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003100158	A1	20031204	WO 2003-US16341	2003 0523

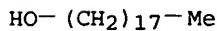
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
 KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,

MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC,
 SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ,
 VC, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
 DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL,
 PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
 GQ, GW, ML, MR, NE, SN, TD, TG
 CA 2493857 AA 20031204 CA 2003-2493857 2003
 AU 2003239603 A1 20031212 AU 2003-239603 0523
 US 2004077238 A1 20040422 US 2003-444713 2003
 EP 1507917 A1 20050223 EP 2003-734154 0523
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
 MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,
 EE, HU, SK
 BR 2003011249 A 20050315 BR 2003-11249 2003
 JP 2005527674 T2 20050915 JP 2004-507594 0523
 PRIORITY APPLN. INFO.: US 2002-383392P P 2002
 WO 2003-US16341 W 0524
 2003
 0523

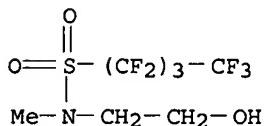
- AB Fluorochem. composition consists of a dispersion or a solution of a fluorinated compound obtained from reaction products of (I) a fluorinated polyether according to the formula: Rf-Q-Tk (I) wherein Rf represents a monovalent perfluorinated polyether group having a mol. weight of at least 750 g/mol, Q represents a chemical bond or a divalent or trivalent organic linking group, T represents a functional group capable of reacting with an isocyanate and k is 1 or 2, (II) an isocyanate component selected from a polyisocyanate compound that has at least 3 isocyanate groups or a mixture of polyisocyanate compds. wherein the average number of isocyanate groups per mol. is more than 2, and (III) optionally one or more co-reactants capable of reacting with an isocyanate group. Thus, polyester-cotton fabrics (e.g., carpet) were coating with a composition containing 2-butanone oxime-blocked reaction products of Voranate M 220 and poly(hexafluoropropylene oxide) heptafluoropropyl 1-((2-hydroxyethyl)aminocarbonyl) tetrafluoroethyl ether.
- IT 112-92-5DP, Stearyl alcohol, reaction products with fluorinated compound and isocyanates 34454-97-2DP, reaction products with fluorinated compound and isocyanates 34455-00-0DP, reaction products with fluorinated compound and isocyanates 53200-31-0DP, Desmodur N 100, reaction products with fluorinated compound 67584-55-8DP, reaction products with fluorinated compound and isocyanates 104559-01-5DP, Desmodur N 3300, reaction products with fluorinated compound
- RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(production of antisoiling oil-
repellent water-repellent
fluorochem. compns. for treatment of fibrous substrates)

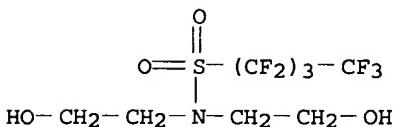
RN 112-92-5 HCPLUS
CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)



RN 34454-97-2 HCPLUS
CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)-N-methyl- (9CI) (CA INDEX NAME)



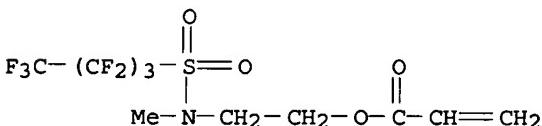
RN 34455-00-0 HCPLUS
CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



RN 53200-31-0 HCPLUS
CN Desmodur N 100 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 67584-55-8 HCPLUS
CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester (9CI) (CA INDEX NAME)



RN 104559-01-5 HCPLUS
CN Desmodur N 3300 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM D06M015-576
IC S C09D175-04; D06M015-53
CC 40-9 (Textiles and Fibers)
Section cross-reference(s): 42
ST antisoiling oil repellent
water fluorochem compn treatment fibrous substrate
IT Coating materials
(antisoiling; production of antisoiling
oil-repellent water-
repellent fluorochem. compns. for treatment of fibrous
substrates)
IT Textiles

- (cotton-polyester; production of **antisoiling oil-repellent water-repellent**
fluorochem. compns. for treatment of fibrous substrates)
- IT Coating materials
 - (oil- and water-resistant; production of **antisoiling oil-repellent water-repellent**
fluorochem. compns. for treatment of fibrous substrates)
- IT Polyurethanes, uses
 - RL: IMF (Industrial manufacture); POF (Polymer in formulation);
TEM (Technical or engineered material use); PREP (Preparation);
USES (Uses)
 - (polyoxyalkylene-, fluorine-containing; production of **antisoiling oil-repellent**
water-repellent fluorochem. compns. for treatment of fibrous substrates)
- IT Fluoropolymers, uses
 - RL: IMF (Industrial manufacture); POF (Polymer in formulation);
TEM (Technical or engineered material use); PREP (Preparation);
USES (Uses)
 - (polyoxyalkylene-polyurethane-; production of **antisoiling oil-repellent water-repellent**
fluorochem. compns. for treatment of fibrous substrates)
- IT Polyoxyalkylenes, uses
 - RL: IMF (Industrial manufacture); POF (Polymer in formulation);
TEM (Technical or engineered material use); PREP (Preparation);
USES (Uses)
 - (polyurethane-, fluorine-containing; production of **antisoiling oil-repellent water-repellent**
fluorochem. compns. for treatment of fibrous substrates)
- IT Carpets
 - Oilproofing agents
 - Soilproofing agents
 - Waterproofing agents
 - (production of **antisoiling oil-repellent water-repellent**
fluorochem. compns. for treatment of fibrous substrates)
- IT 96-29-7, 2-Butanone oxime
 - RL: RCT (Reactant); RACT (Reactant or reagent)
 - (blocking agent; production of **antisoiling oil-repellent water-repellent**
fluorochem. compns. for treatment of fibrous substrates)
- IT 112-00-5, Arquad 12-50 28724-32-5, Ethoquad 18-25 54116-08-4,
Sermul EA 266
 - RL: MOA (Modifier or additive use); USES (Uses)
 - (emulsifier; production of **antisoiling oil-repellent water-repellent**
fluorochem. compns. for treatment of fibrous substrates)
- IT 112-92-5DP, Stearyl alcohol, reaction products with
fluorinated compound and isocyanates 822-06-0DP, Hexamethylene
diisocyanate, reaction products with fluorinated compound
3779-63-3DP, Tris(6-isocyanatohexyl)isocyanurate, reaction
products with fluorinated compound 5124-30-1DP, Methylene
bis(4-cyclohexyl isocyanate), reaction products with fluorinated
compound 9016-87-9DP, Voranate M 220, reaction products with
fluorinated compound and optionally glycerol monostearate
25119-62-4DP, Allyl alcohol-styrene copolymer, reaction products
with fluorinated compound and isocyanates 31566-31-1DP, Glycerol
monostearate, reaction products with fluorinated compound and
isocyanates 34454-97-2DP, reaction products with
fluorinated compound and isocyanates 34455-00-0DP,
reaction products with fluorinated compound and isocyanates
53200-31-0DP, Desmodur N 100, reaction products with
fluorinated compound 67584-55-8DP, reaction products with

fluorinated compound and isocyanates 79103-62-1DP, Desmodur W, reaction products with fluorinated compound 104559-01-5DP, Desmodur N 3300, reaction products with fluorinated compound 118550-50-8DP, Tolonate HDT, reaction products with fluorinated compound 627909-42-6DP, Poly(hexafluoropropylene oxide) heptafluoropropyl 1-((2-hydroxyethyl)aminocarbonyl) tetrafluoroethyl ether, reaction products with isocyanates 627909-43-7DP, Poly(hexafluoropropylene oxide) heptafluoropropyl 1-((2,3-dihydroxypropyl) aminocarbonyl)tetrafluoroethyl ether, reaction products with isocyanates

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(production of antisoiling oil-repellent water-repellent

fluorochem. compns. for treatment of fibrous substrates)

IT 98-08-8, α,α,α -Trifluorotoluene 219484-64-7,
HFE 7100

RL: NUU (Other use, unclassified); USES (Uses)
(solvent; production of antisoiling oil-repellent water-repellent

fluorochem. compns. for treatment of fibrous substrates)

IT 141-43-5, Ethanolamine, reactions 616-30-8, 3-Amino-1,2-propanediol 146185-22-0, Poly(hexafluoropropylene oxide) heptafluoropropyl 1-(methoxycarbonyl)tetrafluoroethyl ether
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting materials; production of antisoiling oil-repellent water-repellent fluorochem. compns. for treatment of fibrous substrates)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 9 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:951256 HCAPLUS

DOCUMENT NUMBER: 140:6143

TITLE: Antisoiling oil- and water-resistant fluorochemical composition for treatment of fibrous substrate

INVENTOR(S): Cote, Linda G.; McAlister, E. Steven

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 77 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

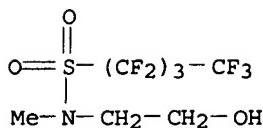
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003100157	A1	20031204	WO 2003-US15088	2003 0513

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

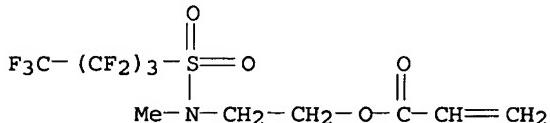
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,

GQ, GW, ML, MR, NE, SN, TD, TG CA 2487067	AA 20031204	CA 2003-2487067	
			2003 0513
AU 2003234544	A1 20031212	AU 2003-234544	2003 0513
EP 1507916	A1 20050223	EP 2003-728884	2003 0513
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
BR 2003011207	A 20050315	BR 2003-11207	2003 0513
US 2005171279	A1 20050804	US 2003-513969	2003 0513
JP 2005526924	T2 20050908	JP 2004-507593	2003 0513
US 2004077238	A1 20040422	US 2003-444713	2003 0513
PRIORITY APPLN. INFO.:		US 2002-383392P	P 2002 0524
		WO 2003-US15088	W 2003 0513

- AB Title fluorochem. composition consists of a dispersion or a solution of (A) a fluorinated repellent compound and (B) a fluorochem. stain release compound (sic). The fluorinated repellent compound contains the reaction products of (I) a fluorinated polyether according to the formula: Rf-Q-Tk (I) wherein Rf represents a monovalent perfluorinated polyether group having a mol. weight of at least 750 g/mol, Q represents a chemical bond or a divalent or 10 trivalent organic linking group, T represents a functional group capable of reacting with an isocyanate, and k is 1 or 2, (II) an isocyanate component selected from a polyisocyanate compound that has at least 3 isocyanate groups or a mixture of polyisocyanate compds. wherein the average number of isocyanate groups per mol. is more than 2, and (III) optionally one or more co-reactants capable of reacting with an isocyanate group. Thus, polyester-cotton fabrics (e.g., carpet) were coating with a composition containing 2-butanone oxime-blocked reaction products of Voranate M 220 and poly(hexafluoropropylene oxide) heptafluoropropyl (1-(2-hydroxyethyl)aminocarbonyl) tetrafluoroethyl ether.
- IT 34454-97-2DP, reaction products with fluorinated polyether and isocyanates 67584-55-8DP, reaction products with fluorinated polyether and isocyanates
RL: IMF (Industrial manufacture); POF (Polymer in formulation);
TEM (Technical or engineered material use); PREP (Preparation);
USES (Uses)
(N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide; production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- RN 34454-97-2 HCPLUS
- CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)-N-methyl- (9CI) (CA INDEX NAME)

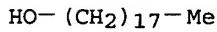


RN 67584-55-8 HCPLUS
 CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester (9CI) (CA INDEX NAME)

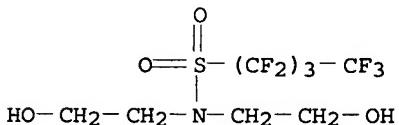


IT 112-92-5DP, Stearyl alcohol, reaction products with fluorinated polyether and isocyanates 34455-00-0DP, reaction products with fluorinated polyether and isocyanates 53200-31-0DP, Desmodur N 100, reaction products with fluorinated polyether
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)

RN 112-92-5 HCPLUS
 CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)



RN 34455-00-0 HCPLUS
 CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



RN 53200-31-0 HCPLUS
 CN Desmodur N 100 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 IC ICM D06M015-576
 ICS C09D175-04; D06M015-53
 CC 40-9 (Textiles and Fibers)
 Section cross-reference(s): 42
 ST antisoiling oil water resistant fluorochem compn
 treatment fibrous substrate
 IT Coating materials
 (antisoiling; production of antisoiling oil-
 and water-resistant fluorochem. composition for treatment of fibrous
 substrate)
 IT Textiles
 (cotton-polyester; production of antisoiling oil- and
 water-resistant fluorochem. composition for treatment of fibrous

- substrate)
- IT Coating materials
 - (oil- and water-resistant; production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT Polyurethanes, uses
 - RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (polyoxyalkylene-, fluorine-containing; production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT Fluoropolymers, uses
 - RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (polyoxyalkylene-polyurethane-; production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT Polyoxyalkylenes, uses
 - RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (polyurethane-, fluorine-containing; production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT Carpets
 - Oilproofing agents
 - Soilproofing agents
 - Waterproofing agents
 - (production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT 9016-87-9DP, Voranate M 220, reaction products with fluorinated polyether
 - RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (Mondur MR; production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT 34454-97-2DP, reaction products with fluorinated polyether and isocyanates 67584-55-8DP, reaction products with fluorinated polyether and isocyanates
 - RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide; production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT 77-58-7
 - RL: CAT (Catalyst use); USES (Uses)
 - (curing catalyst; production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT 112-00-5, Arquad 12-50 28724-32-5, Ethoquad 18-25 54116-08-4, Sermul EA 266
 - RL: MOA (Modifier or additive use); USES (Uses)
 - (emulsifier; production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT 96-29-7, 2-Butanone oxime
 - RL: RCT (Reactant); RACT (Reactant or reagent)
 - (isocyanate-blocking agent; production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)
- IT 101-68-8DP, Diphenylmethane diisocyanate, reaction products with fluorinated polyether 112-92-5DP, Stearyl alcohol, reaction products with fluorinated polyether and isocyanates 3779-63-3DP, Tris(6-isocyanatohexyl)isocyanurate, reaction

products with fluorinated polyether 9004-74-4DP, MPEG 750, reaction products with fluorinated polyether and isocyanates 25119-62-4DP, Allyl alcohol-styrene copolymer, reaction products with fluorinated polyether and isocyanates 31566-31-1DP, Glycerol monostearate, reaction products with fluorinated polyether and isocyanates 34455-00-0DP, reaction products with fluorinated polyether and isocyanates 53200-31-0DP, Desmodur N 100, reaction products with fluorinated polyether 118550-50-8DP, Tolonate HDT, reaction products with fluorinated polyether 627909-42-6DP, reaction products with isocyanate compds. 627909-43-7DP, reaction products with isocyanate compds.

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)

IT 919-30-2, APTES
RL: MOA (Modifier or additive use); USES (Uses)

(production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)

IT 822-06-0D, HDI, reaction products with fluorinated polyether
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)

IT 98-08-8, $\alpha,\alpha,\alpha,-$ Trifluorotoluene 219484-64-7,
HFE 7100
RL: NUU (Other use, unclassified); USES (Uses)

(solvent; production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)

IT 141-43-5, Ethanolamine, reactions 616-30-8, 3-Amino-1,2-propanediol 146185-22-0D, reaction products with isocyanate compds.
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting materials; production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)

IT 628301-64-4, Rewopon IM/OA
RL: MOA (Modifier or additive use); USES (Uses)
(surfactant; production of antisoiling oil- and water-resistant fluorochem. composition for treatment of fibrous substrate)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 10 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:150539 HCPLUS

DOCUMENT NUMBER: 138:172231

TITLE: Alkylated fluorochemical oligomers and use thereof in the treatment of fibrous substrates

INVENTOR(S): Jariwala, Chetan P.; Eggleston, James D.; Yandrasits, Michael A.; Dams, Rudolf J.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: U.S., 17 pp., Cont.-in-part of U.S. 6,288,157.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 6525127	B1	20030225	US 2000-708372	
				2000 1108
US 6288157	B1	20010911	US 1999-309836	
				1999 0511
WO 2002038850	A2	20020516	WO 2001-US46983	
				2001 1106
WO 2002038850	A3	20030103		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002032513	A5	20020521	AU 2002-32513	
				2001 1106
EP 1356153	A2	20031029	EP 2001-992037	
				2001 1106
EP 1356153	B1	20040804		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
AT 272738	E	20040815	AT 2001-992037	
				2001 1106
ES 2223951	T3	20050301	ES 2001-1992037	
				2001 1106
US 2004024262	A1	20040205	US 2003-399415	
				2003 0417
PRIORITY APPLN. INFO.:			US 1999-309836	A2
				1999 0511
			US 2000-708372	A
				2000 1108
			WO 2001-US46983	W
				2001 1106

AB This invention provides a method of treating fibrous substrates, such as leather, by contacting the substrate with a fluorochem. compound comprising: a fluorochem. oligomeric portion comprising an aliphatic backbone with a plurality of pendant fluoroaliph. groups, each fluoroaliph. group having a fully fluorinated terminal group and each independently linked to a carbon atom of the aliphatic backbone through an organic linking group; an aliphatic moiety; and a linking group which links the fluorochem. oligomeric portion to the aliphatic moiety. The fluorochem. compds. provide desirable oil, water and stain repellency to fibrous substrates.
 C₄F₉SO₂N(CH₃)CH₂CH₂OH acrylate was telomerized with 2-mercaptoethanol, then esterified with stearic acid to give a repellent.

IT 306997-46-6P

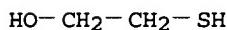
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (alkylated fluorochem. oligomers and use thereof in the treatment of fibrous substrates)

RN 306997-46-6 HCAPLUS

CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 2-mercaptopropanoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2
 CMF C2 H6 O S

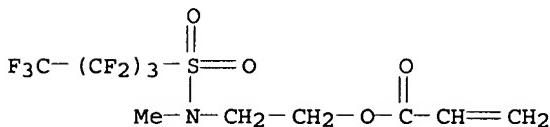


CM 2

CRN 306997-45-5
 CMF (C10 H10 F9 N O4 S)x
 CCI PMS

CM 3

CRN 67584-55-8
 CMF C10 H10 F9 N O4 S



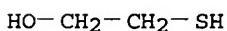
IT 306997-46-6DP, reaction product with EMPOL 1008
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (alkylated fluorochem. oligomers and use thereof in the treatment of fibrous substrates)

RN 306997-46-6 HCAPLUS

CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 2-mercaptopropanoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2
 CMF C2 H6 O S

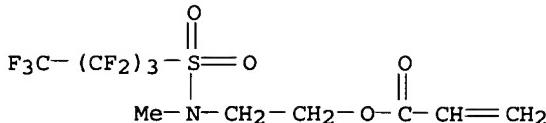


CM 2

CRN 306997-45-5
 CMF (C10 H10 F9 N O4 S)x
 CCI PMS

CM 3

CRN 67584-55-8
 CMF C10 H10 F9 N O4 S



IC ICM C08K005-02
 INCL 524462000; 524544000; 524560000; 525199000; 525200000; 525276000
 CC 45-2 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
 IT 306997-46-6P 306997-47-7P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (alkylated fluorocomp. oligomers and use thereof in the treatment of fibrous substrates)
 IT 150872-29-0DP, EMPOL 1008, reaction product with 2-mercaptoproethanol telomer of 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl acrylate 306997-46-6DP, reaction product with EMPOL 1008 307335-91-7P 497881-82-0P 497881-83-1P 497881-85-3P 497881-86-4P 497881-87-5P 497881-88-6P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (alkylated fluorocomp. oligomers and use thereof in the treatment of fibrous substrates)
 REFERENCE COUNT: 82 THERE ARE 82 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 11 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:716340 HCPLUS
 DOCUMENT NUMBER: 137:249186
 TITLE: Water- and oil-repellency
 -imparting urethane oligomers comprising perfluoroalkyl moieties
 INVENTOR(S): Qiu, Zai-Ming; Clark, John C.; Fan, Wayne W.; Jariwala, Chetan P.; Flynn, Richard M.
 PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
 SOURCE: PCT Int. Appl., 88 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2002072657	A1	20020919	WO 2001-US49669	2001 1226
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2003026997	A1	20030206	US 2001-803702	2001

				0309
US 6803109	B2	20041012		
CA 2439252	AA	20020919	CA 2001-2439252	
				2001
				1226
EP 1370596	A1	20031217	EP 2001-994352	
				2001
				1226
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001016917	A	20040427	BR 2001-16917	
				2001
				1226
CN 1507460	A	20040623	CN 2001-823004	
				2001
				1226
JP 2004530002	T2	20040930	JP 2002-571562	
				2001
				1226
PRIORITY APPLN. INFO.:			US 2001-803702	A
				2001
				0309
			WO 2001-US49669	W
				2001
				1226

AB Fluorochem. urethane compns. comprising one or more compds. or oligomers having at least one fluorine-containing repeatable unit and at least one fluorine-containing terminal group are described. The compns. are useful as coatings or incorporated as melt additives. The fluorochem. compns. impart oil and water repellency to the substrate. In other aspects, this invention relates to processes for imparting oil and water repellency characteristics to substrates and articles such as limestone tiles, carpets, fabrics, and paper. A typical polymer was manufactured by heating EtOAc containing 1.84 g C4F9SO2N(C2H4OH)2, 3.52 g C4F9SO2NMeC2H4OH, 1.66 g HDI, and 2 drops dibutyltin dilaurate 4 h at 65°.

IT 25038-54-4, Nylon 6, miscellaneous 32131-17-2,

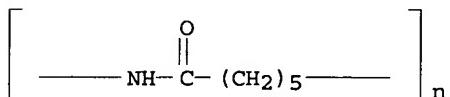
Nylon 66, miscellaneous

RL: MSC (Miscellaneous)

(fibers, substrates; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)

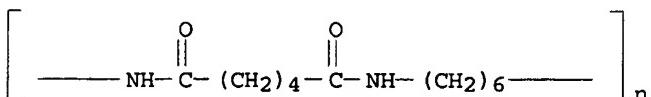
RN 25038-54-4 HCPLUS

CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)

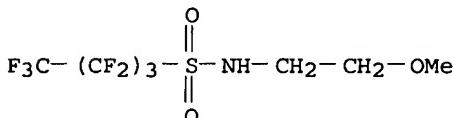


RN 32131-17-2 HCPLUS

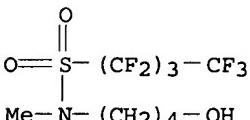
CN Poly[imino(1,6-dioxo-1,6-hexanediyl)imino-1,6-hexanediyl] (9CI) (CA INDEX NAME)



IT 40630-68-0P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (terminating compound precursor; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups moieties for coatings)
 RN 40630-68-0 HCPLUS
 CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-methoxyethyl)- (9CI) (CA INDEX NAME)



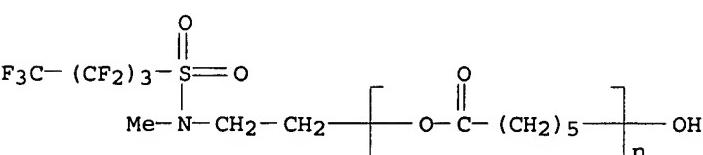
IT 812-94-2P 34454-99-4P 460349-73-9P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (terminating compound; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
 RN 812-94-2 HCPLUS
 CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(4-hydroxybutyl)-N-methyl- (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 34454-99-4 HCPLUS
 CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)

O
 $\text{F}_3\text{C}-\text{(CF}_2)_3-\overset{\begin{array}{c} \text{O} \\ \parallel \\ \text{O} \end{array}}{\text{S}}-\text{NH}-\text{CH}_2-\text{CH}_2-\text{OH}$

RN 460349-73-9 HCPLUS
 CN Poly[oxy(1-oxo-1,6-hexanediyl)], α -[2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl]- ω -hydroxy- (9CI) (CA INDEX NAME)



IT 812-94-2DP, N-(4-Hydroxybutyl)-N-

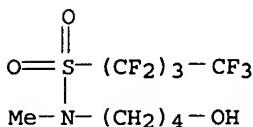
methylperfluorobutanesulfonamide, reaction products with fluoropolyurethanes 24448-09-7DP, N-(2-Hydroxyethyl)-N-methylperfluorooctanesulfonamide, reaction products with fluoropolyurethanes 34454-99-4DP, N-(2-Hydroxyethyl)-1,1,2,2,3,3,4,4,4-nonafluorobutanesulfonamide, reaction products with fluoropolyurethanes 460349-73-9DP, reaction products with fluoropolyurethanes 460349-74-0DP, N,N-Bis(2-hydroxyethyl)nonafluorobutanesulfonamide-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-75-1DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-76-2DP, N,N-Bis(2-hydroxyethyl)perfluoroctanesulfonamide-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorooctanesulfonamide 460349-77-3DP, reaction products with (hydroxyethyl)(methyl)perfluoroctanesulfonamide 460349-78-4DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-1,12-dodecane diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-79-5DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-80-8DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-tetramethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-81-9DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-82-0DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-octamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-83-1DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-84-2DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-ethylene glycol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-85-3DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-1,4-butanediol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-86-4DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-diethylene glycol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-88-6DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-2,2,3,3,4,4-hexafluoro-1,5-pentanediol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-92-2DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-N,N-bis(2-hydroxyethyl)methylamine-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-94-4DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-95-5DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-100 copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-96-6DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-100-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-97-7DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-3300 copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-98-8DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-99-9DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-3400 copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide

460350-03-2P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (water- and oil-repellency-imparting
 urethane oligomers comprising fluorine-containing repeating units
 and terminal groups for coatings)

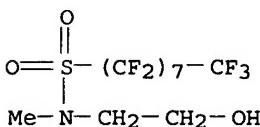
RN 812-94-2 HCPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(4-hydroxybutyl)-N-methyl- (6CI, 8CI, 9CI) (CA INDEX NAME)



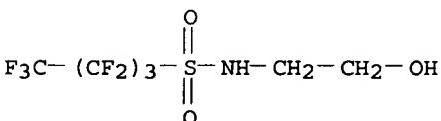
RN 24448-09-7 HCPLUS

CN 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-N-methyl- (8CI, 9CI) (CA INDEX NAME)



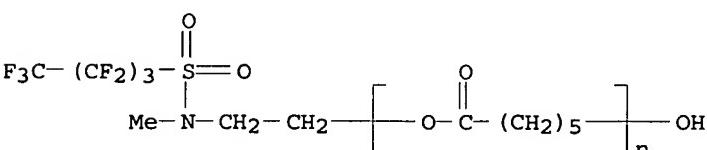
RN 34454-99-4 HCPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



RN 460349-73-9 HCPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)], α -[2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl]- ω -hydroxy- (9CI) (CA INDEX NAME)



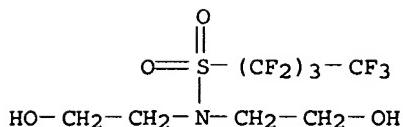
RN 460349-74-0 HCPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

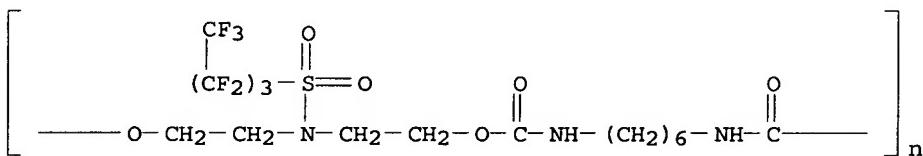
CM 1

CRN 34455-00-0

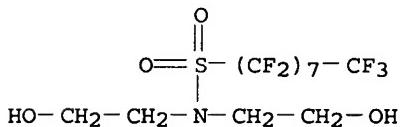
CMF C8 H10 F9 N O4 S



CM 2

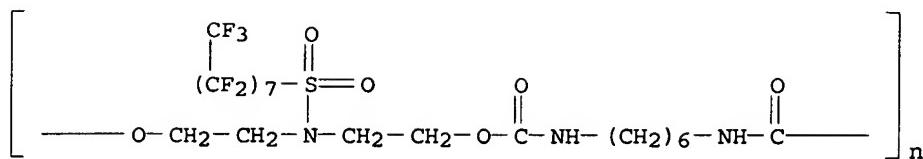
CRN 822-06-0
CMF C8 H12 N2 O2OCN-(CH₂)₆-NCORN 460349-75-1 HCPLUS
CN Poly[oxy-1,2-ethanediyl[[(nonafluorobutyl)sulfonyl]imino]-1,2-ethanediylloxycarbonylimino-1,6-hexanediyyliminocarbonyl] (9CI) (CA INDEX NAME)RN 460349-76-2 HCPLUS
CN 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

CRN 40630-61-3
CMF C12 H10 F17 N O4 S

CM 2

CRN 822-06-0
CMF C8 H12 N2 O2OCN-(CH₂)₆-NCORN 460349-77-3 HCPLUS
CN Poly[oxy-1,2-ethanediyl[[(heptadecafluoroctyl)sulfonyl]imino]-1,2-ethanediylloxycarbonylimino-1,6-hexanediyyliminocarbonyl] (9CI) (CA INDEX NAME)



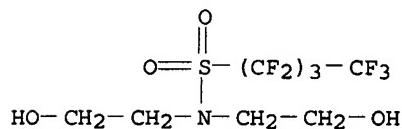
RN 460349-78-4 HCPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,12-diisocyanatododecane (9CI) (CA INDEX NAME)

CM 1

CRN 34455-00-0

CMF C8 H10 F9 N 04 S



CM 2

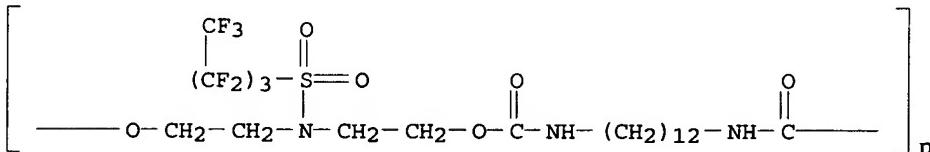
CRN 13879-35-1

CMF C14 H24 N2 O2

OCN---(CH₂)₁₂---NCO

RN 460349-79-5 HCPLUS

CN Poly[oxy-1,2-ethanediyl{[(nonafluorobutyl)sulfonyl]imino}-1,2-ethanediyoxy carbonylimino-1,12-dodecanediyliminocarbonyl] (9CI) (CA INDEX NAME)



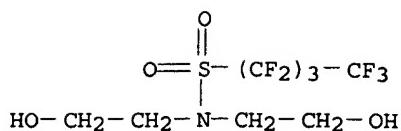
RN 460349-80-8 HCPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,4-diisocyanatobutane (9CI) (CA INDEX NAME)

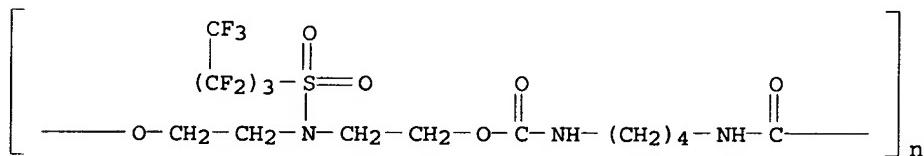
CM 1

CRN 34455-00-0

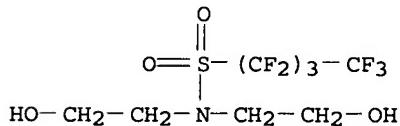
CMF C8 H10 F9 N 04 S



CM 2

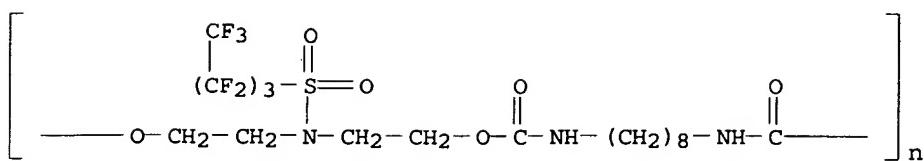
CRN 4538-37-8
CMF C6 H8 N2 O2OCN-(CH₂)₄-NCORN 460349-81-9 HCPLUS
CN Poly[oxy-1,2-ethanediyl{[(nonafluorobutyl)sulfonyl]imino}-1,2-ethanediylloxycarbonylimino-1,4-butanediyliminocarbonyl] (9CI) (CA INDEX NAME)RN 460349-82-0 HCPLUS
CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,8-diisocyanatoctane (9CI) (CA INDEX NAME)

CM 1

CRN 34455-00-0
CMF C8 H10 F9 N O4 S

CM 2

CRN 10124-86-4
CMF C10 H16 N2 O2OCN-(CH₂)₈-NCORN 460349-83-1 HCPLUS
CN Poly[oxy-1,2-ethanediyl{[(nonafluorobutyl)sulfonyl]imino}-1,2-ethanediylloxycarbonylimino-1,8-octanediyiminocarbonyl] (9CI) (CA INDEX NAME)



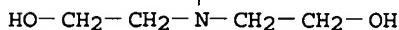
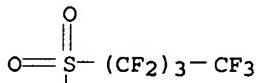
RN 460349-84-2 HCPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,6-diisocyanatohexane and 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 34455-00-0

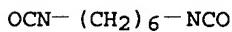
CMF C8 H10 F9 N O4 S



CM 2

CRN 822-06-0

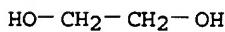
CMF C8 H12 N2 O2



CM 3

CRN 107-21-1

CMF C2 H6 O2



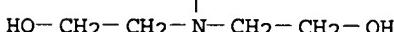
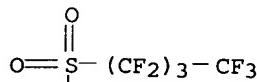
RN 460349-85-3 HCPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,4-butanediol and 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

CM 1

CRN 34455-00-0

CMF C8 H10 F9 N O4 S



CM 2

CRN 822-06-0
 CMF C8 H12 N2 O2

OCN—(CH₂)₆—NCO

CM 3

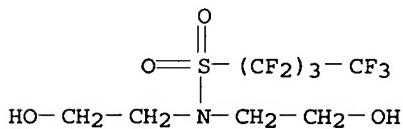
CRN 110-63-4
 CMF C4 H10 O2

HO—(CH₂)₄—OH

RN 460349-86-4 HCAPLUS
 CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,6-diisocyanatohexane and 2,2'-oxybis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 34455-00-0
 CMF C8 H10 F9 N O4 S



CM 2

CRN 822-06-0
 CMF C8 H12 N2 O2

OCN—(CH₂)₆—NCO

CM 3

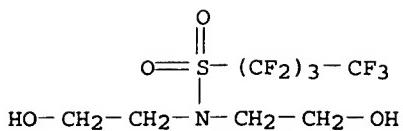
CRN 111-46-6
 CMF C4 H10 O3

HO—CH₂—CH₂—O—CH₂—CH₂—OH

RN 460349-88-6 HCAPLUS
 CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,6-diisocyanatohexane and 2,2,3,3,4,4-hexafluoro-1,5-pentanediol (9CI) (CA INDEX NAME)

CM 1

CRN 34455-00-0
 CMF C8 H10 F9 N O4 S



CM 2

CRN 822-06-0
 CMF C8 H12 N2 O2

OCN-(CH₂)₆-NCO

CM 3

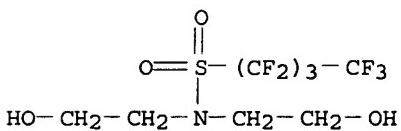
CRN 376-90-9
 CMF C5 H6 F6 O2

HO-CH₂-(CF₂)₃-CH₂--OH

RN 460349-92-2 HCAPLUS
 CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with 1,6-diisocyanatohexane and 2,2'-(methylimino)bis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 34455-00-0
 CMF C8 H10 F9 N O4 S



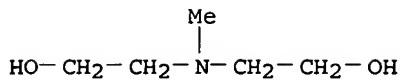
CM 2

CRN 822-06-0
 CMF C8 H12 N2 O2

OCN-(CH₂)₆-NCO

CM 3

CRN 105-59-9
 CMF C5 H13 N O2



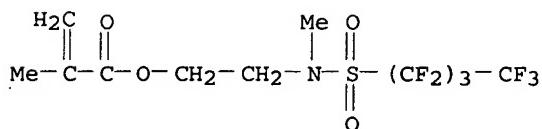
RN 460349-94-4 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with
1,6-diisocyanatohexane and 2-[methyl[(nonafluorobutyl)sulfonyl]ami-
no]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 67584-59-2

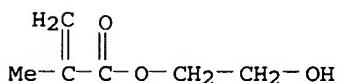
CMF C11 H12 F9 N O4 S



CM 2

CRN 868-77-9

CMF C6 H10 O3



CM 3

CRN 822-06-0

CMF C8 H12 N2 O2

OCN-(CH₂)₆-NCO

RN 460349-95-5 HCPLUS

CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-
hydroxyethyl)-, polymer with Desmodur N 100 (9CI) (CA INDEX NAME)

CM 1

CRN 53200-31-0

CMF Unspecified

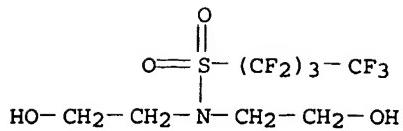
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 34455-00-0

CMF C8 H10 F9 N O4 S



RN 460349-96-6 HCPLUS
 CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with Desmodur N 100 and 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

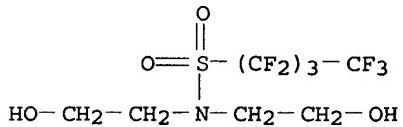
CM 1

CRN 53200-31-0
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 34455-00-0
 CMF C8 H10 F9 N O4 S



CM 3

CRN 822-06-0
 CMF C8 H12 N2 O2

OCN-(CH₂)₆-NCO

RN 460349-97-7 HCPLUS
 CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with Desmodur N 3300 (9CI) (CA INDEX NAME)

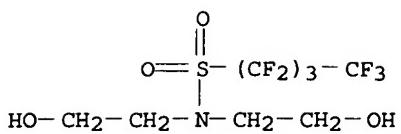
CM 1

CRN 104559-01-5
 CMF Unspecified
 CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

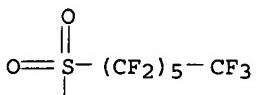
CRN 34455-00-0
 CMF C8 H10 F9 N O4 S



RN 460349-98-8 HCAPLUS
 CN 1-Hexanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6-tridecafluoro-N,N-bis(2-hydroxyethyl)-, polymer with Desmodur N 3300 (9CI) (CA INDEX NAME)

CM 1

CRN 185689-61-6
 CMF C10 H10 F13 N O4 S



HO-CH₂-CH₂-N-CH₂-CH₂-OH

CM 2

CRN 104559-01-5
 CMF Unspecified
 CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 RN 460349-99-9 HCAPLUS
 CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-, polymer with Desmodur N 3400 (9CI) (CA INDEX NAME)

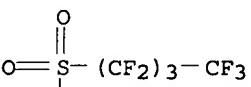
CM 1

CRN 165169-07-3
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 34455-00-0
 CMF C8 H10 F9 N O4 S



HO-CH₂-CH₂-N-CH₂-CH₂-OH

RN 460350-03-2 HCAPLUS
 CN Glycine, N,N-bis(2-hydroxyethyl)-, polymer with Desmodur N 3300 and 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(2-hydroxyethyl)-1-butanesulfonamide (9CI) (CA INDEX NAME)

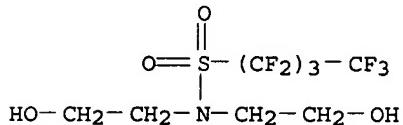
CM 1

CRN 104559-01-5
 CMF Unspecified
 CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

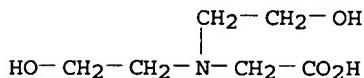
CM 2

CRN 34455-00-0
 CMF C8 H10 F9 N O4 S



CM 3

CRN 150-25-4
 CMF C6 H13 N O4



- IC ICM C08G018-38
 ICS C08G018-28; C08G018-50; D06M013-428; D06M015-576
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 40, 43, 57
 ST fluoropolyurethane waterproof oilproof coating limestone tile;
 paper fluoropolyurethane waterproof oilproof coating; carpet
 fluoropolyurethane waterproof oilproof finish; fabric
 fluoropolyurethane waterproof oilproof finish; bishydroxyethyl
 perfluorobutanesulfonamide HDI copolymer manuf oilproof waterproof
 coating
 IT Polyamide fibers, miscellaneous
 RL: MSC (Miscellaneous)
 (6, substrates; water- and oil-repellency
 -imparting urethane oligomers comprising fluorine-containing
 repeating units and terminal groups for coatings)
 IT Polyamide fibers, miscellaneous
 RL: MSC (Miscellaneous)
 (66, substrates; water- and oil-repellency
 -imparting urethane oligomers comprising fluorine-containing
 repeating units and terminal groups for coatings)
 IT Polyurethanes, uses
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (acrylic-polyamine-, fluorine-containing; water- and oil-
 repellency-imparting urethane oligomers comprising
 fluorine-containing repeating units and terminal groups for
 coatings)
 IT Fluoropolymers, uses
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (acrylic-polyamine-polyurethane-, water- and oil-
 repellency-imparting urethane oligomers comprising
 fluorine-containing repeating units and terminal groups for
 coatings)

- IT Polyamines
 - RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (acrylic-polyurethane-, fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Fabric finishing
 - (agents; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for textile finishing agents)
- IT Amines, uses
 - RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (coco alkyl, ethoxylated, Ethomeen C-25, fluoropolyurethanes, salts; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamide fibers, miscellaneous
 - RL: MSC (Miscellaneous)
 - (fabrics, substrates; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamides, miscellaneous
 - RL: MSC (Miscellaneous)
 - (fibers, substrates; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamides, miscellaneous
 - RL: MSC (Miscellaneous)
 - (films, substrates; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyurethanes, uses
 - RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Coating materials
 - (oil- and water-resistant; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyurethanes, uses
 - RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (polyamine-, fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyurethanes, uses
 - RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (polyamine-polyether-, fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Fluoropolymers, uses
 - RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (polyamine-polyether-polyurethane-; water- and oil-repellency-imparting urethane oligomers comprising

- fluorine-containing repeating units and terminal groups for coatings)
- IT Polyurethanes, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyamine-polyisocyanurate-, fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyurethanes, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyamine-polyisocyanurate-polyoxyalkylene-, fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyamine-polyisocyanurate-polyoxyalkylene-polyurethane-; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyoxyalkylenes, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyamine-polyisocyanurate-polyurethane-, fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyamine-polyisocyanurate-polyurethane-; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyurethanes, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyamine-polyoxyalkylene-, fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyisocyanurates
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyamine-polyoxyalkylene-polyurethane-, fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyamine-polyoxyalkylene-polyurethane-; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyethers, uses
Polyisocyanurates
Polyoxyalkylenes, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyamine-polyurethane-, fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)

- for coatings)
- IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyamine-polyurethane-; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyurethanes, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyether-, fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamines
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyether-polyurethane-, fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyether-polyurethane-; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamines
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyisocyanurate-polyoxyalkylene-polyurethane-, fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamines
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyisocyanurate-polyurethane-, fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamines
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyoxyalkylene-polyurethane-, fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyamines
Polyethers, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyurethane-, fluorine-containing; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyurethane-; water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)
- IT Polyesters, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered

- material use); PREP (Preparation); USES (Uses)
 (reaction products, with fluoropolyurethanes; water- and
 oil-repellency-imparting urethane oligomers
 comprising fluorine-containing repeating units and terminal groups
 for coatings)
- IT Limestone, miscellaneous
 RL: MSC (Miscellaneous)
 (substrate; water- and oil-repellency
 -imparting urethane oligomers comprising fluorine-containing
 repeating units and terminal groups for coatings)
- IT Carpets
 Paper
 Plastic films
 (substrates; water- and oil-repellency
 -imparting urethane oligomers comprising fluorine-containing
 repeating units and terminal groups for coatings)
- IT Molded plastics, miscellaneous
 RL: MSC (Miscellaneous)
 (substrates; water- and oil-repellency
 -imparting urethane oligomers comprising fluorine-containing
 repeating units and terminal groups for coatings)
- IT 25038-54-4, Nylon 6, miscellaneous 32131-17-2,
 Nylon 66, miscellaneous
 RL: MSC (Miscellaneous)
 (fibers, substrates; water- and oil-
 repellency-imparting urethane oligomers comprising
 fluorine-containing repeating units and terminal groups for
 coatings)
- IT 24647-14-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (monomer precursor; water- and oil-repellency
 -imparting urethane oligomers comprising fluorine-containing
 repeating units and terminal groups for coatings)
- IT 43181-25-5P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (monomer; water- and oil-repellency
 -imparting urethane oligomers comprising fluorine-containing
 repeating units and terminal groups for coatings)
- IT 109-85-3, 2-Methoxyethylamine 660-12-8, 1-Butanesulfonyl
 fluoride 6962-92-1, 4-Chlorobutyl acetate 16867-25-7,
 N-Methyl-1-butanesulfonamide
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (terminating compound precursor; water- and oil-
 repellency-imparting urethane oligomers comprising
 fluorine-containing repeating units and terminal groups for
 coatings)
- IT 40630-68-0P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (terminating compound precursor; water- and oil-
 repellency-imparting urethane oligomers comprising
 fluorine-containing repeating units and terminal groups moieties
 for coatings)
- IT 812-94-2P 34454-99-4P 460349-73-9P
 460987-01-3P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (terminating compound; water- and oil-
 repellency-imparting urethane oligomers comprising
 fluorine-containing repeating units and terminal groups for
 coatings)
- IT 75-89-8DP, 2,2,2-Trifluoroethanol, reaction products with
 fluoropolyurethanes 96-29-7DP, 2-Butanone oxime, reaction
 products with fluoropolyurethanes 105-59-9DP,
 N-Methyldiethanolamine, salts with carboxy group-containing

fluoropolymers 812-94-2DP, N-(4-Hydroxybutyl)-N-methylperfluorobutanesulfonamide, reaction products with fluoropolyurethanes 818-61-1DP, 2-Hydroxyethyl acrylate, reaction products with fluoropolyurethanes 868-77-9DP, 2-Hydroxyethyl methacrylate, reaction products with fluoropolyurethanes 24448-09-7DP, N-(2-Hydroxyethyl)-N-methylperfluoroctanesulfonamide, reaction products with fluoropolyurethanes 34454-99-4DP, N-(2-Hydroxyethyl)-1,1,2,2,3,3,4,4,4-nonafluorobutanesulfonamide, reaction products with fluoropolyurethanes 93894-53-2DP, reaction products with fluoropolyurethanes 460349-73-9DP, reaction products with fluoropolyurethanes 460349-74-0DP, N,N-Bis(2-hydroxyethyl)nonafluorobutanesulfonamide-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-75-1DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-76-2DP, N,N-Bis(2-hydroxyethyl)perfluoroctanesulfonamide-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluoroctanesulfonamide 460349-77-3DP, reaction products with (hydroxyethyl)(methyl)perfluoroctanesulfonamide 460349-78-4DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-1,12-dodecane diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-79-5DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-80-8DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-tetramethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-81-9DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-82-0DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-octamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-83-1DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-84-2DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-ethylene glycol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-85-3DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-1,4-butanediol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-86-4DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-diethylene glycol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-87-5DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-ethylene oxide-hexamethylene diisocyanate-propylene oxide block copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-88-6DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-2,2,3,3,4,4-hexafluoro-1,5-pentanediol-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-90-0DP, 1,5-Bis(2-hydroxy-1,1-fluoroethoxy)perfluoropentane-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-91-1DP, 1,5-Bis(2-hydroxy-1,1-fluoroethoxy)perfluoropentane-hexamethylene diisocyanate copolymer, sru, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-92-2DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-N,N-bis(2-hydroxyethyl)methylamine-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-93-3DP, N-(2-Hydroxyethyl)-1,1,2,2,3,3-heptafluoropropanesulfonamide,

reaction products with fluoropolyurethanes 460349-94-4DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-95-5DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-100 copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-96-6DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-100-hexamethylene diisocyanate copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-97-7DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-3300 copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-98-8DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460349-99-9DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-3400 copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460350-00-9DP, N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide-Desmodur N-3400-MDI copolymer, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460350-01-0DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460350-02-1DP, reaction products with (hydroxyethyl)(methyl)perfluorobutanesulfonamide 460350-03-2P 460350-05-4P 460987-01-3DP, reaction products with fluoropolyurethanes
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (water- and oil-repellency-imparting urethane oligomers comprising fluorine-containing repeating units and terminal groups for coatings)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 12 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:709074 HCPLUS
 DOCUMENT NUMBER: 137:233752
 TITLE: Artificial leathers with good fire, mould, and water repellency, and their manufacture
 INVENTOR(S): Ikeyama, Masami; Iijima, Hiromichi
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002266253	A2	20020918	JP 2001-64663	2001 0308
PRIORITY APPLN. INFO.:			JP 2001-64663	2001 0308

AB The artificial leathers comprising elastomer-impregnated super fine fibers and/or their fabrics contain (A) phosphazenes P(X1)(X1):NP(X2)(Y2):NP(X3)(Y3):N and/or P(X1)(X1):NP(X2)(Y2):NP(X3)(Y3):NP(X4)(Y4):N (X1-4, Y1-4 = amino, PhO) 1.5-10, (B) benzimidazoles 0.1-5, and (C) polyfluoroalkyl-containing urethanes 0.1-5%. Thus, a PET-polystyrene islands-in-the-sea bicomponent fiber felt was impregnated with polyether-polyester-polyurethane rubbers, treated with dyes and

tetraphenoxydiaminocyclotriphosphazene, washed, further treated with C9F19CH2CH2OCONH(CH2)6NH[CON[(CH2)6NHCO2CH2CH2C9F19]]2H and 2-methoxycarbonylaminobenzimidazole, and dried to give an artificial leather showing good water and mold resistance even after 5-time washing.

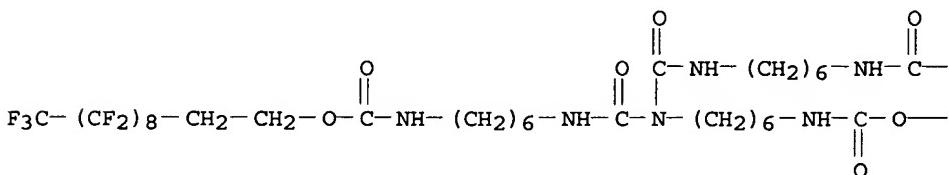
IT 457892-32-9

RL: TEM (Technical or engineered material use); USES (Uses)
(water repellent agent; artificial leather with good fire,
mold, and water repellency)

RN 457892-32-9 HCPLUS

CN 2,9,11,13,20-Pentaazaheneicosanedioic acid, 11-[6-[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoroundecyl)oxy]carbonyl]amino]hexyl]-10,12-dioxo-,
bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoroundecyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— O—CH₂—CH₂—(CF₂)₈—CF₃

— CH₂—CH₂—(CF₂)₈—CF₃

IC ICM D06N003-00

ICS C08K005-3447; C08L075-04; C08L085-02; C08L101-00; D04H001-42;
D06M013-352; D06M015-576; D06M015-673

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 40

IT 457892-32-9

RL: TEM (Technical or engineered material use); USES (Uses)
(water repellent agent; artificial leather with good fire,
mold, and water repellency)

L114 ANSWER 13 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:592215 HCPLUS

DOCUMENT NUMBER: 137:141784

TITLE: Antisoiling coating compositions and
fiber products treated with them

INVENTOR(S): Maekawa, Takashige; Shindo, Minako; Seki,
Takashi; Oharu, Kazuya; Furuta, Shoji

PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002220781	A2	20020809	JP 2001-17403	

PRIORITY APPLN. INFO.:

JP 2001-17403

2001
01252001
0125

OTHER SOURCE(S): MARPAT 137:141784

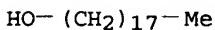
AB The compns. contain Rf₁XO₂CACO₂YRf₂ (I; Rf₁, Rf₂ = C≤22 perfluoroalkyl; X, Y = divalent organic group; A = C1-8 divalent org group). Thus, a nylon loop pile carpet was coated with an emulsion containing I (A = X = Y = CH₂, Rf₁ = Rf₂ = mixture of C₆F₁₃, C₈F₁₇, C₁₀F₂₁, C₁₂F₂₅, and C₁₄F₂₉ at molar ratio of 2:50:30:15:3), showing good water and oil repellency and soil resistance.

IT 112-92-5DP, Stearyl alcohol, reaction products with HDI trimer and perfluoroalkyl alcs. 647-42-7DP, reaction products with HDI trimer, perfluoroalkyl alcs., and stearyl alc. 678-39-7DP, reaction products with HDI trimer, perfluoroalkyl alcs., and stearyl alc. 865-86-1DP, reaction products with HDI trimer, perfluoroalkyl alcs., and stearyl alc. 39239-77-5DP, reaction products with HDI trimer, perfluoroalkyl alcs., and stearyl alc. 60699-51-6DP, reaction products with HDI trimer, perfluoroalkyl alcs., and stearyl alc. 444890-32-8P 444890-33-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(antisoiling coating compns. for fiber products)

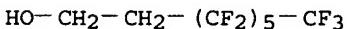
RN 112-92-5 HCPLUS

CN 1-Octadecanol (8CI, 9CI) (CA INDEX NAME)



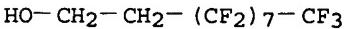
RN 647-42-7 HCPLUS

CN 1-Octanol, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro- (7CI, 8CI, 9CI) (CA INDEX NAME)



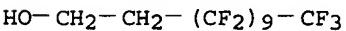
RN 678-39-7 HCPLUS

CN 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- (7CI, 8CI, 9CI) (CA INDEX NAME)



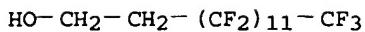
RN 865-86-1 HCPLUS

CN 1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-heneicosafuoro- (7CI, 8CI, 9CI) (CA INDEX NAME)

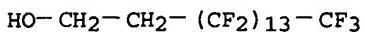


RN 39239-77-5 HCPLUS

CN 1-Tetradecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-pentacosafuoro- (9CI) (CA INDEX NAME)



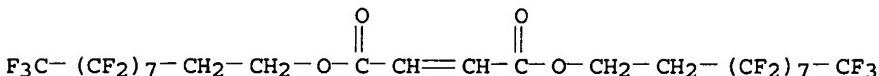
RN 60699-51-6 HCAPLUS
 CN 1-Hexadecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13
 ,14,14,15,15,16,16-nonacosfluoro- (9CI) (CA INDEX NAME)



RN 444890-32-8 HCAPLUS
 CN 2-Butenedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,
 heptadecafluorodecyl) ester, polymer with methyl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

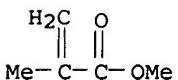
CM 1

CRN 49676-48-4
 CMF C24 H10 F34 O4



CM 2

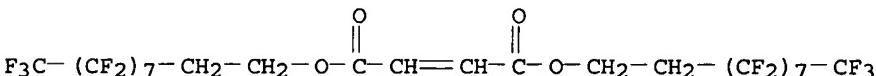
CRN 80-62-6
 CMF C5 H8 O2



RN 444890-33-9 HCAPLUS
 CN 2-Butenedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,
 heptadecafluorodecyl) ester, polymer with ethyl
 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA
 INDEX NAME)

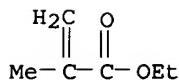
CM 1

CRN 49676-48-4
 CMF C24 H10 F34 O4

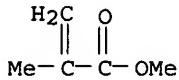


CM 2

CRN 97-63-2
 CMF C6 H10 O2

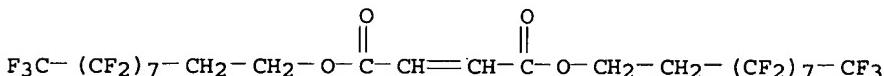


CM 3

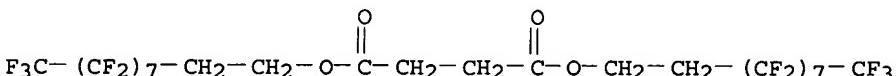
CRN 80-62-6
CMF C5 H8 O2

IT 49676-48-4 261928-47-6 444890-28-2
 444890-29-3 444890-30-6 444890-31-7
 RL: TEM (Technical or engineered material use); USES (Uses)
 (antisoiling coating compns. for fiber
 products)

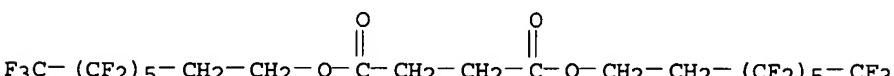
RN 49676-48-4 HCPLUS
 CN 2-Butanedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-
 heptadecafluorodecyl) ester (9CI) (CA INDEX NAME)



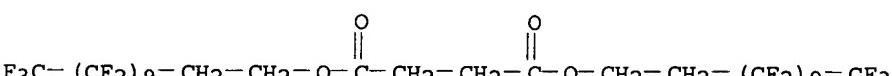
RN 261928-47-6 HCPLUS
 CN Butanedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-
 heptadecafluorodecyl) ester (9CI) (CA INDEX NAME)



RN 444890-28-2 HCPLUS
 CN Butanedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,8-
 tridecafluoroctyl) ester (9CI) (CA INDEX NAME)

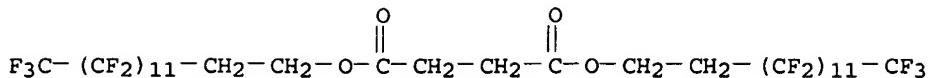


RN 444890-29-3 HCPLUS
 CN Butanedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,1
 2,12-heneicosafafluorododecyl) ester (9CI) (CA INDEX NAME)

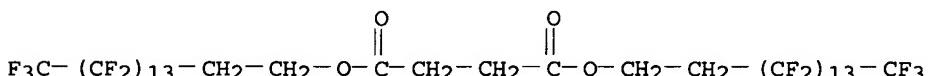


RN 444890-30-6 HCPLUS
 CN Butanedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,1
 2,13,13,14,14,14-pentacosafafluorotetradecyl) ester (9CI) (CA INDEX

NAME)



RN 444890-31-7 HCAPLUS
 CN Butanedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16)-nonacosfluorohexadecyl ester (9CI)
 (CA INDEX NAME)



IC ICM D06M013-236
 ICS C08K005-00; C08L027-12; C08L033-16; C08L101-00; C09K003-00;
 D06M015-277; D06M015-295; D06M015-576
 CC 40-9 (Textiles and Fibers)
 Section cross-reference(s): 42
 ST perfluoroalkyl butanedioate antisoiling coating nylon
 carpet; water repellency perfluoroalkyl
 butanedioate antisoiling coating fiber;
 oil repellency perfluoroalkyl butanedioate
 antisoiling coating fiber
 IT Fluoropolymers, uses
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (acrylic; antisoiling coating compns. for
 fiber products)
 IT Coating materials
 (antisoiling, water-resistant; antisoiling
 coating compns. for fiber products)
 IT Polyamide fibers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (carpets; antisoiling coating compns. for
 fiber products)
 IT Coating materials
 (oil-resistant; antisoiling coating compns. for
 fiber products)
 IT Carpets
 (pile; antisoiling coating compns. for)
 IT 9011-14-7P, Methyl methacrylate homopolymer
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (antisoiling coating compns. for fiber
 products)
 IT 112-92-5DP, Stearyl alcohol, reaction products with HDI
 trimer and perfluoroalkyl alcs. 647-42-7DP, reaction
 products with HDI trimer, perfluoroalkyl alcs., and stearyl alc.
 678-39-7DP, reaction products with HDI trimer,
 perfluoroalkyl alcs., and stearyl alc. 865-86-1DP,
 reaction products with HDI trimer, perfluoroalkyl alcs., and
 stearyl alc. 28574-90-5DP, Hexamethylene diisocyanate trimer,
 reaction products with perfluoroalkyl alcs. and stearyl alc.
 39239-77-5DP, reaction products with HDI trimer,
 perfluoroalkyl alcs., and stearyl alc. 60699-51-6DP,
 reaction products with HDI trimer, perfluoroalkyl alcs., and
 stearyl alc. 110539-63-4DP, Sumidur N 3200, reaction products
 with perfluoroalkyl alcs. and stearyl alc. 444890-32-8P
 444890-33-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (antisoiling coating compns. for fiber products)

IT 49676-48-4 261928-47-6 444890-28-2
 444890-29-3 444890-30-6 444890-31-7
 RL: TEM (Technical or engineered material use); USES (Uses)
 (antisoiling coating compns. for fiber products)

L114 ANSWER 14 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:368721 HCAPLUS
 DOCUMENT NUMBER: 136:387741
 TITLE: Alkylated fluorochemical oligomers and use thereof in the treatment of fibrous substrates
 INVENTOR(S): Jariwala, Chetan P.; Eggleston, James D.; Yandrasits, Michael A.; Dams, Rudolf J.; Coppens, Dirk M.
 PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
 SOURCE: PCT Int. Appl., 54 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 2002038850	A2	20020516	WO 2001-US46983	2001 1106
WO 2002038850	A3	20030103		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 6525127	B1	20030225	US 2000-708372	2000 1108
AU 2002032513	A5	20020521	AU 2002-32513	2001 1106
EP 1356153	A2	20031029	EP 2001-992037	2001 1106
EP 1356153	B1	20040804		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
AT 272738	E	20040815	AT 2001-992037	2001 1106
US 2004024262	A1	20040205	US 2003-399415	2003 0417
PRIORITY APPLN. INFO.:			US 2000-708372	A 2000 1108

US 1999-309836

A2

1999
0511

WO 2001-US46983

W

2001
1106

AB This invention provides a method of treating fibrous substrates, such as leather, by contacting the substrate with a fluorochem. compound comprising: a fluorochem. oligomeric portion comprising an aliphatic backbone with a plurality of pendant fluoroaliph. groups, each fluoroaliph. group having a fully fluorinated terminal group and each independently linked to a carbon atom of the aliphatic backbone through an organic linking group; an aliphatic moiety; and a linking group which links the fluorochem. oligomeric portion to the aliphatic moiety. The fluorochem. compds. provide desirable oil, water and stain repellency to fibrous substrates.

IT 306997-46-6DP, C₄₀-48-fatty acid esters

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (alkylated fluorochem. oligomers and use thereof in the treatment of fibrous substrates)

RN 306997-46-6 HCAPLUS

CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 2-mercaptopethanol (9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2

CMF C₂ H₆ O S

HO—CH₂—CH₂—SH

CM 2

CRN 306997-45-5

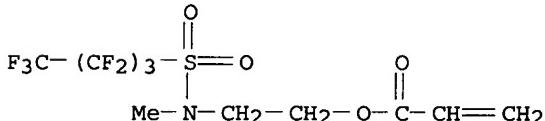
CMF (C₁₀ H₁₀ F₉ N O₄ S)x

CCI PMS

CM 3

CRN 67584-55-8

CMF C₁₀ H₁₀ F₉ N O₄ S



IT 306997-46-6P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (alkylated fluorochem. oligomers and use thereof in the treatment of fibrous substrates)

RN 306997-46-6 HCAPLUS

CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 2-mercaptopethanol (9CI) (CA INDEX NAME)

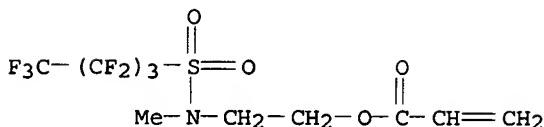
CM 1

CRN 60-24-2
CMF C2 H6 O SHO—CH₂—CH₂—SH

CM 2

CRN 306997-45-5
CMF (C10 H10 F9 N O4 S)x
CCI PMS

CM 3

CRN 67584-55-8
CMF C10 H10 F9 N O4 S

IC ICM D06M015-277

ICS D06M013-156; D06M013-265

CC 46-4 (Surface Active Agents and Detergents)

Section cross-reference(s): 40

IT 306997-46-6P, C40-48-fatty acid esters 306997-47-7DP,
 C40-48-fatty acid esters 307497-48-9P 425664-28-4P
 425664-30-8P 425664-32-0P 425664-34-2P 425664-36-4P
 425664-38-6P 425664-40-0P 425664-42-2P 425664-44-4P
 425664-46-6P 425664-48-8P 425664-50-2P 425664-52-4P
 425664-54-6P 425669-05-2P 425669-06-3P 425669-07-4P
 425669-08-5P 425669-09-6P 425669-10-9P 425669-11-0P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
 or engineered material use); PREP (Preparation); USES (Uses)
 (alkylated fluorochem. oligomers and use thereof in the
 treatment of fibrous substrates)

IT 306997-46-6P 306997-47-7P 307335-82-6P 425664-20-6P
 425664-21-7P 425664-22-8P 425664-25-1P 425664-26-2P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (alkylated fluorochem. oligomers and use thereof in the
 treatment of fibrous substrates)

L114 ANSWER 15 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:453037 HCPLUS

DOCUMENT NUMBER: 135:62685

TITLE: Fluoroalkyl triazine compounds and use as
water repellentINVENTOR(S): Clark, Gregory D.; Behr, Frederick E.;
 Roberts, Gary P.; Vander Louw, Steven J.;
 Hall, Gregory K. E.

PATENT ASSIGNEE(S): 3M Innovative Properties Co., USA

SOURCE: PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2001044209	A1	20010621	WO 2000-US30598	
				2000
				1107
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6391948	B1	20020521	US 1999-461153	
				1999
				1214
PRIORITY APPLN. INFO.:			US 1999-461153	A
				1999
				1214

OTHER SOURCE(S): MARPAT 135:62685

AB The invention describes fluorochem. triazine compds., compns. containing the fluorochem. triazine compds., the process for preparing the fluorochem. compds. and compns., substrates treated with the fluorochem. compds., melt extrusion of fibers and films containing the fluorochem. compds. and compns., and coating, polish and marine antifouling compns. to provide oil and water repellency to substrates.

IT 507-63-1P, Perfluoroctyl iodide 2043-53-0P,
2-(Perfluoroctyl)ethyl iodide
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(fluoroalkyl triazine compds. and use as water repellent)

RN 507-63-1 HCPLUS

CN Octane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-8-iodo-(9CI) (CA INDEX NAME)

$\text{F}_3\text{C}-\text{(CF}_2)_7-\text{I}$

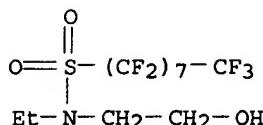
RN 2043-53-0 HCPLUS
CN Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-10-iodo-(8CI, 9CI) (CA INDEX NAME)

$\text{ICH}_2-\text{CH}_2-\text{(CF}_2)_7-\text{CF}_3$

IT 1691-99-2DP, reaction products with triazine derivs.
34143-74-3DP, reaction products with triazine derivs.
34454-97-2P 104559-01-5DP, DESMODUR N-3300,
reaction products with fluoroalkyl compds. and triazine compds.
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluoroalkyl triazine compds. and use as water repellent)

RN 1691-99-2 HCPLUS
CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-N-(2-hydroxyethyl)- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

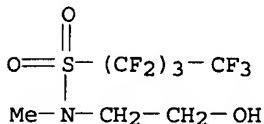
INDEX NAME)



RN 34143-74-3 HCAPLUS
 CN 1-Decanethiol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-
 heptadecafluoro- (8CI, 9CI) (CA INDEX NAME)

HS-CH₂-CH₂-(CF₂)₇-CF₃

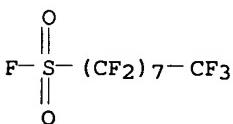
RN 34454-97-2 HCAPLUS
 CN 1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-
 hydroxyethyl)-N-methyl- (9CI) (CA INDEX NAME)



RN 104559-01-5 HCAPLUS
 CN Desmodur N 3300 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 IT 307-35-7, Perfluorooctanesulfonyl fluoride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (fluoroalkyl triazine compds. and use as water
 repellent)

RN 307-35-7 HCAPLUS
 CN 1-Octanesulfonyl fluoride, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-
 heptadecafluoro- (8CI, 9CI) (CA INDEX NAME)



IC ICM C07D251-34
 ICS C09D005-16; C09G001-12; C09D007-12
 CC 42-5 (Coatings, Inks, and Related Products)
 IT Alcohols, uses
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (C8-12, γ - ω -perfluoro, reaction products with
 fluoroalkyl compds. and triazine compds.; fluoroalkyl triazine
 compds. and use as water repellent)
 IT Coating materials
 (antifouling, marine; fluoroalkyl triazine compds. and use as
 water repellent)
 IT Polysiloxanes, uses
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (di-Me, mercaptopropyl group-terminated, reaction products with

- fluoroalkyl compds. and triazine compds.; fluoroalkyl triazine compds. and use as **water repellent**)
- IT Aminoplasts
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (fluoroalkyl triazine compds. and use as **water repellent**)
- IT Perfluoro compounds
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (γ - ω -perfluoro-C8-12 alcs., reaction products with fluoroalkyl compds. and triazine compds.; fluoroalkyl triazine compds. and use as **water repellent**)
- IT 507-63-1P, Perfluoroctyl iodide 2043-53-0P,
 2-(Perfluoroctyl)ethyl iodide
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (fluoroalkyl triazine compds. and use as **water repellent**)
- IT 101-37-1P, 2,4,6-Triallyloxy-1,3,5-triazine 107-96-0P,
 3-Mercaptopropionic acid 112-43-6P, ω -Undecylenylalcohol
 1025-15-6DP, reaction products with fluoroalkyl compds.
 1691-99-2DP, reaction products with triazine derivs.
 4420-74-0DP, reaction products with triazine derivs.
 34143-74-3DP, reaction products with triazine derivs.
 34454-97-2P 104559-01-5DP, DESMODUR N-3300,
 reaction products with fluoroalkyl compds. and triazine compds.
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (fluoroalkyl triazine compds. and use as **water repellent**)
- IT 9003-08-1, RESIMENE 747
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (fluoroalkyl triazine compds. and use as **water repellent**)
- IT 62-56-6, Thiourea, reactions 74-85-1, Ethylene, reactions
 307-35-7, Perfluorooctanesulfonyl fluoride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (fluoroalkyl triazine compds. and use as **water repellent**)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 16 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2000:848069 HCPLUS
 DOCUMENT NUMBER: 134:30135
 TITLE: Water- and oil-repellent
 INVENTOR(S): sheets and production methods therefor
 Yoneda, Hisao; Matsui, Mikihiro; Ikebukuro, Kazunari
 PATENT ASSIGNEE(S): Kuraray Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000336348	A2	20001205	JP 1999-149607	1999 0528

PRIORITY APPLN. INFO.:

JP 1999-149607

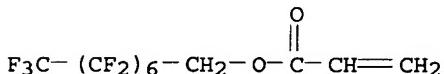
1999
0528

- AB Sheets having fluoropolymers on the surface are prepared and bonded to other articles at <100° and heated at >130° after bonding. Thus, a leather substitute, namely, a polyether polyurethane-coated nylon 6 nonwoven fabric, having a surface layer containing Resamine ME 8115LP and poly(1,1-dihydroperfluoroctyl acrylate) was coated with an adhesive at 80°, bonded to a sole treated similarly, and heated at 140° to prepare a sports shoe.
- IT 26337-50-8, Poly(1,1-dihydroperfluoroctyl acrylate)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings; water- and oil-repellent sheets
 for leather substitutes for shoes)
- RN 26337-50-8 HCPLUS
- CN 2-Propenoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-
 pentadecafluoroctyl ester, homopolymer (9CI) (CA INDEX NAME)

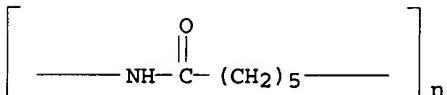
CM 1

CRN 307-98-2

CMF C11 H5 F15 O2



- IT 25038-54-4, Nylon 6, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (fibers, nonwoven fabric; water- and
 oil-repellent sheets for leather substitutes
 for shoes)
- RN 25038-54-4 HCPLUS
- CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



- IC ICM C09K003-18
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 40
- ST water oil repellent shoe; polyamide nonwoven
 fabric polyurethane leather substitute
- IT Polyolefin fibers
 RL: TEM (Technical or engineered material use); USES (Uses)
 (ethylene; water- and oil-repellent sheets
 for leather substitutes for shoes)
- IT Polyamides, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (fibers, nonwoven fabric; water- and
 oil-repellent sheets for leather substitutes
 for shoes)
- IT Coating materials
 (oil-resistant; water- and oil-repellent
 sheets for leather substitutes for shoes)
- IT Polyurethanes, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (polycarbonate-; water- and oil-repellent

sheets for leather substitutes for shoes)

IT Polyurethanes, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (polyester-; water- and oil-repellent
 sheets for leather substitutes for shoes)

IT Polyurethanes, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (polyether-; water- and oil-repellent
 sheets for leather substitutes for shoes)

IT Polycarbonates, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (polyurethane-; water- and oil-repellent
 sheets for leather substitutes for shoes)

IT Adhesion, physical
 Adhesives
 Leather substitutes
 Nonwoven fabrics
 Shoes
 Sporting goods
 (water- and oil-repellent sheets for
 leather substitutes for shoes)

IT Coating materials
 (water-resistant; water- and oil-repellent
 sheets for leather substitutes for shoes)

IT 26337-50-8, Poly(1,1-dihydroperfluoroctyl acrylate)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings; water- and oil-repellent sheets
 for leather substitutes for shoes)

IT 25038-54-4, Nylon 6, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (fibers, nonwoven fabric; water- and
 oil-repellent sheets for leather substitutes
 for shoes)

IT 9002-88-4, Polyethylene
 RL: TEM (Technical or engineered material use); USES (Uses)
 (fibers; water- and oil-repellent
 sheets for leather substitutes for shoes)

IT 25190-06-1D, Ptmg, polyurethanes 132469-64-8, Resamine ME 8115LP
 135991-65-0, Resamine ME 8105LP 150604-75-4, Desmodur RE
 310901-83-8, Notape 3080
 RL: TEM (Technical or engineered material use); USES (Uses)
 (water- and oil-repellent sheets for
 leather substitutes for shoes)

L114 ANSWER 17 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2000:814577 HCAPLUS
 DOCUMENT NUMBER: 133:363857
 TITLE: Polish composition containing alkylated fluoro
 oligomers
 INVENTOR(S): Vander Louw, Steven J.; Jariwala, Chetan P.
 PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
 SOURCE: PCT Int. Appl., 35 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

WO 2000068333	A1	20001116	WO 1999-US20065	1999 0901

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN,
 CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM,

HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6235824	B1	20010522	US 1999-309461	1999 0511
CA 2372466	AA	20001116	CA 1999-2372466	1999 0901
AU 9958003	A1	20001121	AU 1999-58003	1999 0901
EP 1183315	A1	20020306	EP 1999-945400	1999 0901
EP 1183315	B1	20040414		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002544319	T2	20021224	JP 2000-616302	1999 0901
ES 2215401	T3	20041001	ES 1999-945400	1999 0901
ITY APPLN. INFO.:			US 1999-309461	A 1999 0511
			WO 1999-US20065	W 1999 0901

- AB A polish composition for protecting a substrate from environmental damage comprises a base component selected from the group consisting of waxes, silicone oils, and mixts. thereof and an alkylated fluorochem. oligomer comprising: (i) a fluorochem. oligomeric portion comprising an aliphatic backbone with a plurality of fluoroaliph. groups attached thereto, each fluoroaliph. group having a fully fluorinated terminal group and each independently linked to a carbon atom of the aliphatic backbone through an organic linking group; (ii) an aliphatic moiety; and (iii) a linking group which links the fluorochem. oligomeric portion to the aliphatic moiety.

- IT 306997-46-6DP, esters with fatty acids
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
TEM (Technical or engineered material use); PREP (Preparation);
USES (Uses)

(polish composition containing alkylated fluoro oligomers)

RN 306997-46-6 HCAPLUS
CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 3 mercaptoethanol (ACI) (CA INDEX NAME)

CM 1

CRN 60-24-2
CME C2 U6 Q S

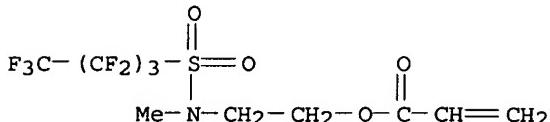
$$\text{HO}-\text{CH}_2-\text{CH}_2-\text{SH}$$

CM 2

CRN 306997-45-5
 CMF (C10 H10 F9 N 04 S)x
 CCI PMS

CM 3

CRN 67584-55-8
 CMF C10 H10 F9 N 04 S



IC ICM C09G001-08
 ICS C09G001-16

CC 42-11 (Coatings, Inks, and Related Products)
 IT 107-96-0DP, 3-Mercaptopropionic acid, telomers with fluoroacrylic polymers, esters 118058-39-2DP, Unilin 425, esters with fluoro acrylic telomers 190735-24-1DP, Fluowet AC 812, telomers with mercaptopropionic acid, esters 306997-46-6DP, esters with fatty acids 306997-47-7DP, esters with fatty acids 307299-86-1P 307299-88-3P 307299-89-4P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polish composition containing alkylated fluoro oligomers)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 18 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:814452 HCPLUS

DOCUMENT NUMBER: 133:363131

TITLE: Alkylated fluoroochemical oligomers and use thereof as repellents

INVENTOR(S): Jariwala, Chetan P.; Klun, Thomas P.; Dams, Rudolf J.; Jones, Marvin E.

PATENT ASSIGNEE(S): 3M Innovative Properties Co., USA

SOURCE: PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
WO 2000068189	A1	20001116	WO 1999-US20063	

1999
0901

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN,
 CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM,
 HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
 LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
 PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA,
 UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
 BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6288157	B1	20010911	US 1999-309836	1999 0511
AU 9958001	A1	20001121	AU 1999-58001	1999 0901
JP 2002544188	T2	20021224	JP 2000-617170	1999 0901
PRIORITY APPLN. INFO.:			US 1999-309836	A 1999 0511
			WO 1999-US20063	W 1999 0901

AB This invention provides fluorochem. compds. comprising: a fluorochem. oligomeric portion comprising an aliphatic backbone with a plurality of pendant fluoroaliph. groups, each fluoroaliph. group having a fully fluorinated terminal group and each independently linked to a carbon atom of the aliphatic backbone through an organic linking group; an aliphatic moiety; and a linking group which links the fluorochem. oligomeric portion to the aliphatic moiety. The fluorochem. compds. are useful as topical treatments for fibrous substrates such as textiles and fabrics, and as polymer melt additives to provide desirable oil-, water and stain repellency to shaped articles such as fibers.

IT Repellency to shaped articles such as fibers.
306997-46-6DP, esters with Unicid 700
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(alkylated fluorocomp. oligomers and use thereof as repellents)

RN 306997-46-6 HCAPLUS
CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 2-mercaptoethanol (9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2
CMF C2 H6 O S

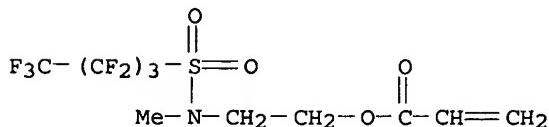
$$\text{HO}-\text{CH}_2-\text{CH}_2-\text{SH}$$

CM 2

CRN 306997-45-5
CMF (C10 H10 F9 N O4 S)x
CCI PMS

CM 3

CRN 67584-55-8
CMF C10 H10 F9 N O4 S



IT 306997-46-6P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (alkylated fluorochem. oligomers and use thereof as repellents)

RN 306997-46-6 HCAPLUS
 CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 2-mercaptopropanoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2
 CMF C2 H6 O S

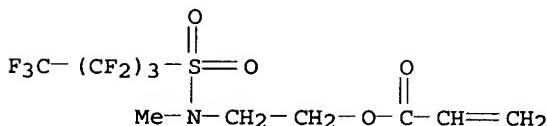
HO—CH₂—CH₂—SH

CM 2

CRN 306997-45-5
 CMF (C10 H10 F9 N O4 S)x
 CCI PMS

CM 3

CRN 67584-55-8
 CMF C10 H10 F9 N O4 S



IC ICM C07C323-52
 ICS C08K005-435; C08K005-375; D06M013-252
 CC 35-4 (Chemistry of Synthetic High Polymers)
 IT 272128-22-0P 306997-46-6DP, esters with Unicid 700
 306997-47-7DP, esters with Unicid 700 307299-86-1P
 307299-88-3P 307299-89-4P 307335-80-4DP, esters with Unicid
 700 307335-81-5DP, esters with Unicid 700 307335-83-7P
 307335-84-8P 307335-86-0P 307335-88-2DP, esters with
 perfluoroalkylsulfonamide alcs. 307335-90-6P 307335-91-7P
 307497-28-5P 307497-41-2P 307497-44-5P 307497-46-7P
 307497-48-9P 307497-50-3P
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PREP (Preparation); USES (Uses)
 (alkylated fluorochem. oligomers and use thereof as repellents)

IT 306997-46-6P 306997-47-7P 307299-85-0P 307299-87-2P
 307335-79-1P 307335-80-4P 307335-81-5P 307335-82-6P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (alkylated fluorochem. oligomers and use thereof as repellents)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L114 ANSWER 19 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2000:628335 HCAPLUS
 DOCUMENT NUMBER: 133:224218
 TITLE: Surface-treating agents for carpet fibers
 comprising metal alkoxides,
 fluorine-containing compounds having
 functional groups reactable with metal

alkoxides and polymers having functional groups reactable with fibers for improved stain blocking properties and water and oil repellency

INVENTOR(S): Sato, Kazuyuki; Morita, Masamichi; Yamaguchi, Fumihiro; Kubo, Motonobu
 PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 31 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
WO 2000052251	A1	20000908	WO 2000-JP1170	2000 0229
W: JP, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 2000248464	A2	20000912	JP 1999-57100	1999 0304
EP 1167616	A1	20020102	EP 2000-905407	2000 0229
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			JP 1999-57100	A 1999 0304
			WO 2000-JP1170	W 2000 0229

- AB The agents comprise (A) metal alkoxides, (B) F-containing compds. having functional groups reactable with A, and (C) polymers containing reactive groups reactable with the treatment materials, and carpet fibers treated with the agents show stain blocking rating (AATCC TM-175-1993) ≥ 8 and Knoop surface hardness (KH) ≥ 5 . Thus, 15 parts [3-(methacryloyloxy)propyl]trimethoxysilane was copolymd. with tetraethoxysilane 15, poly(methacrylic acid) (FX-668F) 15, (heptadecafluoro-1,1,2,2-tetrahydrodecyl)triethoxysilane 1.5, and Me methacrylate 5 parts to give a copolymer (I). A nylon pile carpet was spray coated with a solution (solids 3%) containing I 90, benzoin Me ether 0.75, and N,N-methylenebisacrylamide 4 parts and MeOH and exposed to UV rays for 10 min to give a carpet exhibiting water resistance [maximum iso-PrOH content (in volume%) of an aqueous drop containing iso-PrOH for retention of shape of the drop for 3 min] 50, oil repellency rating (AATCC TM-118-1966) 3, stain blocking rating 10, and soiling resistance (AATCC TM-123-1995) 80% and exhibiting Knoop hardness 22.
- IT 291536-66-8P, Methacrylic acid-[3-(methacryloyloxy)propyl]trimethoxysilane-methyl methacrylate-tetraethoxysilane copolymer ester with 2-(perfluoroctyl)ethanol, polymer with N,N-methylenebisacrylamide 292139-01-6P, (Heptadecafluoro-1,1,2,2-tetrahydrodecyl)triethoxysilane-methacrylic acid-[3-(methacryloyloxy)propyl]trimethoxysilane-methyl methacrylate-N,N-methylenebisacrylamide-tetraethoxysilane copolymer

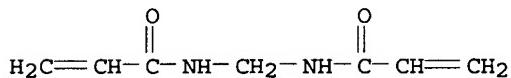
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (finishes for carpet fibers comprising metal alkoxides,
 fluorine-containing compds. having functional groups reactable with
 metal alkoxides and polymers having functional groups reactable
 with fibers for improved stain blocking properties)

RN 291536-66-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with methyl
 2-methyl-2-propenoate, silicic acid (H₄SiO₄) tetraethyl ester and
 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate,
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heptadecafluorodecyl ester,
 polymer with N,N'-methylenebis[2-propenamide] (9CI) (CA INDEX
 NAME)

CM 1

CRN 110-26-9
 CMF C7 H10 N2 O2

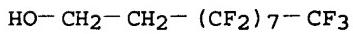


CM 2

CRN 291536-65-7
 CMF (C₁₀ H₂₀ O₅ Si . C₈ H₂₀ O₄ Si . C₅ H₈ O₂ . C₄ H₆ O₂)_x . x C₁₀
 H₅ F₁₇ O

CM 3

CRN 678-39-7
 CMF C₁₀ H₅ F₁₇ O

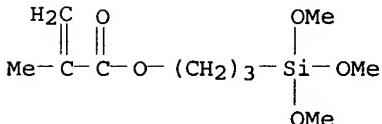


CM 4

CRN 291536-64-6
 CMF (C₁₀ H₂₀ O₅ Si . C₈ H₂₀ O₄ Si . C₅ H₈ O₂ . C₄ H₆ O₂)_x
 CCI PMS

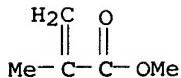
CM 5

CRN 2530-85-0
 CMF C₁₀ H₂₀ O₅ Si



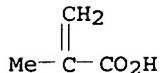
CM 6

CRN 80-62-6
 CMF C₅ H₈ O₂



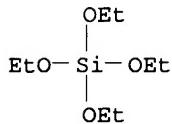
CM 7

CRN 79-41-4
CMF C4 H6 O2



CM 8

CRN 78-10-4
CMF C8 H2O O4 Si



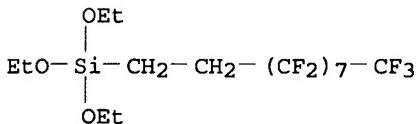
RN 292139-01-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with N,N'-methylenebis[2-propenamide], methyl 2-methyl-2-propenoate, silicic acid (H₄SiO₄) tetraethyl ester, triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)silane and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

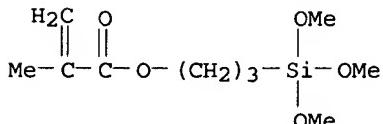
CRN 101947-16-4

CMF C16 H19 F17 O3 Si



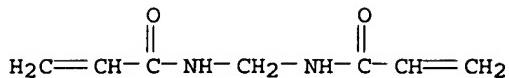
CM 2

CRN 2530-85-0
CMF C10 H20 O5 Si



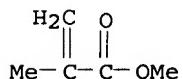
CM 3

CRN 110-26-9
 CMF C7 H10 N2 O2



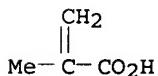
CM 4

CRN 80-62-6
 CMF C5 H8 O2



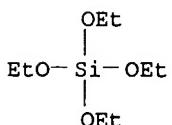
CM 5

CRN 79-41-4
 CMF C4 H6 O2



CM 6

CRN 78-10-4
 CMF C8 H20 O4 Si



IC ICM D06M013-144

CC 40-9 (Textiles and Fibers)

IT 291536-66-8P, Methacrylic acid-[3-(methacryloyloxy)propyl]trimethoxysilane-methyl methacrylate-tetraethoxysilane copolymer ester with

2-(perfluoroctyl)ethanol, polymer with N,N-methylenebisacrylamide 292139-01-6P, (Heptadecafluoro-1,1,2,2-

tetrahydrodecyl)triethoxysilane-methacrylic acid-[3-(methacryloyloxy)propyl]trimethoxysilane-methyl

methacrylate-N,N-methylenebisacrylamide-tetraethoxysilane copolymer

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(finishes for carpet fibers comprising metal alkoxides, fluorine-containing compds. having functional groups reactable with

metal alkoxides and polymers having functional groups reactable with fibers for improved stain blocking properties)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 20 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:300961 HCPLUS

DOCUMENT NUMBER: 132:341202

TITLE: Oil-based ink-jet printing ink composition for statically ink-attracting mode printing and method for printing using same

INVENTOR(S): Nakasawa, Yusuke; Kato, Eiichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	

JP 2000129181	A2	20000509	JP 1998-307290	
				1998
				1028
PRIORITY APPLN. INFO.:			JP 1998-307290	
				1998
				1028

AB In the oil-based ink-jet printing ink composition, which is used for statically ink-attracting mode printing, having dispersed 0.1-3 μ m particles in a non-aqueous solution of $\geq 10^9 \Omega$ cm resistance and of ≤ 3.5 dielec. constant, the composition has 0.05-5 % of a fluoro surfactant which is soluble in the non-aqueous solvent. The addition of the fluoro surfactant in the composition provides the stable ink-emitting and the excellent image quality.

IT 267401-96-7

RL: TEM (Technical or engineered material use); USES (Uses)
(7fluoro surfactant in ink-jet printing composition)

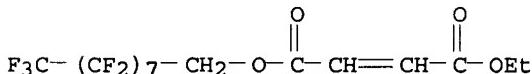
RN 267401-96-7 HCPLUS

CN 2-Butenedioic acid, ethyl 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptadecafluorononyl ester, polymer with 1-octadecene (9CI) (CA INDEX NAME)

CM 1

CRN 267401-95-6

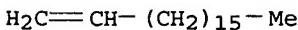
CMF C15 H9 F17 O4



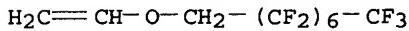
CM 2

CRN 112-88-9

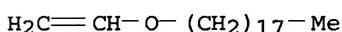
CMF C18 H36



IT 267401-97-8
 RL: TEM (Technical or engineered material use); USES (Uses)
 (fluoro surfactant in ink-jet printing composition)
 RN 267401-97-8 HCAPLUS
 CN Octadecane, 1-(ethenyloxy)-, polymer with 8-(ethenyloxy)-
 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7-pentadecafluorooctane (9CI) (CA
 INDEX NAME)
 CM 1
 CRN 29414-42-4
 CMF C10 H5 F15 O



CM 2
 CRN 930-02-9
 CMF C20 H40 O



IC ICM C09D011-00
 ICS B41M005-00
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 Section cross-reference(s): 42
 IT 267401-96-7
 RL: TEM (Technical or engineered material use); USES (Uses)
 (7fluoro surfactant in ink-jet printing composition)
 IT 29403-97-2 88992-72-7, Lauryl methacrylate-
 heptadecafluorooctylethyl methacrylate copolymer 114453-80-4,
 SURFLON SC105 182883-73-4, MEGAFAC F178A 267401-90-1
 267401-91-2 267401-92-3 267401-93-4 267401-94-5
 267401-97-8 267411-43-8
 RL: TEM (Technical or engineered material use); USES (Uses)
 (fluoro surfactant in ink-jet printing composition)

L114 ANSWER 21 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2000:34670 HCAPLUS
 DOCUMENT NUMBER: 132:86022
 TITLE: Optical recording material
 INVENTOR(S): Ono, Toshitsugu; Kondo, Hirofumi; Sakamoto,
 Tetsuhiro
 PATENT ASSIGNEE(S): Sony Corporation, Japan
 SOURCE: Eur. Pat. Appl., 30 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 971344	A1	20000112	EP 1999-113267	1999 0708

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
 MC, PT, IE, SI, LT, LV, FI, RO

JP 2000082236	A2	20000321	JP 1998-311473	
PRIORITY APPLN. INFO.:				1998 1030
			JP 1998-194537	A 1998 0709
			JP 1998-311473	A 1998 1030

OTHER SOURCE(S): MARPAT 132:86022

AB An optical recording material comprises, on a substrate, a recording layer, a light-permeable layer, and a surface layer comprising a carboxylic acid amine salt represented by the formula $(RCO_2)^n [HN+(R1)(R2)]^n R_3$ or $R_4CO_2-R_5N+R_6R_7R_8$ wherein R is a perfluoroalkyl group having 3 or more carbon atoms; n = an integer of 1-3; each of R1 and R2 is H or a hydrocarbon group; R3 is a hydrocarbon group; at least one of R4 and R6 is a perfluoroalkyl group having 3 or more carbon atoms; and at least one of R4-8 is a hydrocarbon group having 12 or more carbon atoms and the rest of them are H or hydrocarbon groups.

IT 254103-84-9 254103-85-0

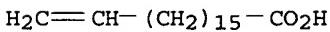
RL: TEM (Technical or engineered material use); USES (Uses)
(optical recording materials with surface layers of)

RN 254103-84-9 HCAPLUS

CN 17-Octadecenoic acid, compd. with 12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-pentadecafluoro-1-octadecanamine (1:1) (9CI) (CA INDEX NAME)

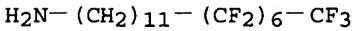
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CRN 19307-16-5
CMF C18 H34 O2



CM 2

CRN 10496-29-4
CMF C18 H24 F15 N

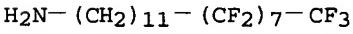


RN 254103-85-0 HCAPLUS

CN 15-Hexadecenoic acid, compd. with 12,12,13,13,14,14,15,15,16,16,17,17,18,18,19,19,19-heptadecafluoro-1-nonadecanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 129749-49-1
CMF C19 H24 F17 N



CM 2

CRN 4675-57-4
CMF C16 H30 O2



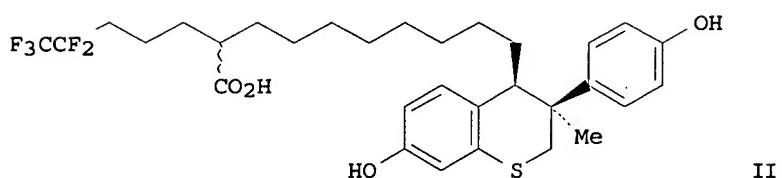
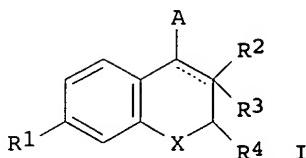
IC ICM G11B007-24
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT 120302-37-6 120302-39-8 120302-44-5 120302-46-7
 120302-47-8 120302-48-9 254103-72-5 254103-73-6
 254103-74-7 254103-75-8 254103-76-9 254103-77-0
 254103-78-1 254103-80-5 254103-82-7 254103-83-8
 254103-84-9 254103-85-0
 RL: TEM (Technical or engineered material use); USES (Uses)
 (optical recording materials with surface layers of)
 REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L114 ANSWER 22 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1999:811229 HCPLUS
 DOCUMENT NUMBER: 132:49886
 TITLE: Preparation of benzopyran and benzothiopyran derivatives with antiestrogenic activity
 INVENTOR(S): Jo, Jae Chon; Lim, Hyun Suk; Kim, Jong Min;
 Kim, Ju Su; Morikawa, Kazumi; Kanbe, Yoshitake; Kim, Myung Hwa; Nishimoto, Masahiro
 PATENT ASSIGNEE(S): C & C Research Laboratories, S. Korea
 SOURCE: PCT Int. Appl., 457 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9965893	A1	19991223	WO 1999-KR300	1999 0614
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
KR 2000001793	A	20000115	KR 1998-22212	1998 0613
CA 2334634	AA	19991223	CA 1999-2334634	1999 0614
AU 9941719	A1	20000105	AU 1999-41719	1999 0614
AU 756589 EP 1087959	B2 A1	20030116 20010404	EP 1999-925450	1999 0614
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,				

MC, PT, IE, FI				
JP 2002529372	T2	20020910	JP 2000-554718	
				1999
				0614
NO 2000006293	A	20010213	NO 2000-6293	2000
				1211
KR 2001052755	A	20010625	KR 2000-714048	2000
				1211
US 6645951	B1	20031111	US 2001-719608	2001
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US 2004102479	A1	20040527	US 2003-640696	2003
				0812
PRIORITY APPLN. INFO.:				KR 1998-22212 A
				1998
				0613
		WO 1999-KR300 W		1999
				0614
		US 2001-719608 A3		2001
				0716

OTHER SOURCE(S) : MARPAT 132:49886
GI



AB Title compds. (I) [where X = O or S; R1 = H, OH, acyloxy, or alkoxy; R2 = (un)substituted Ph, (un)substituted amino, or a 5- or 6-membered unsatd. heterocycle containing N, O, or S; R3 = null, H, or alkyl; R4 = H or alkyl, A = H, hydroxyalkyl, carboxyalkyl, carboxyvinylphenyl, pyrrole substituted by carboxyvinylbenzyl, etc.] were prepared for use in the treatment breast cancer. Examples include over 70 syntheses and 3 bioassays. For example, II was prepared by a 14-step sequence involving: (1-2) a 2-step synthesis of 8-(t-butyldimethylsilyloxy)-1-octyne, (3) 4-alkylation of 7-methoxy-3-(4-methoxyphenyl)-3-methylthiochroman-4-one with the alkyne (99.3%), (4) reduction of the 4-hydroxy group by NaBH4 in the presence of ZnI2 followed by hydrogenation of the alkyne by Pd/C (50.5%), (5) desilylation (93%), (6) O-mesylation (97.7%), (7) iodation of the mesylate (93.6%), (8-10) 3-step

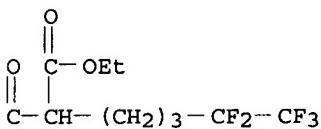
synthesis of di-Et 2-(4,4,5,5,5-pentafluoropentyl)propane-1,3-dioate, (11) addition of the di-Et malonate derivative to the 8-iodooctylthiochroman (95.9%), (12) deesterification, (13) decarboxylation (82.1%), and (14) deprotection of the OH groups (88.7%). The MCF-7 cell growth inhibiting activities of representative invention compds. varied widely [IC₅₀ = 54.5 nM to 4993 nM compared with IC₅₀ = 77 nM (trans) and 9.2 nM (cis) for the known antiestrogenic compound ZM 189154]. The antiestrogenic activities of I (oral administration) in ovariectomized mice were comparable or superior to ZM 189154.

IT 252948-84-8P 252948-91-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of benzopyran and benzothiopyran derivs.
with antiestrogenic activity for the treatment of breast
cancer)

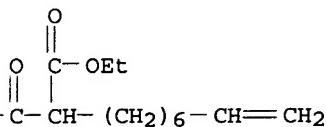
RN 252948-84-8 HCAPLUS

CN 9-Decenoic acid, 3-oxo-2-(4,4,5,5,5-pentafluoropentyl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 252948-91-7 HCAPLUS

CN 9-Decenoic acid, 2-(4,4,5,5,5-pentafluoro-1-oxopentyl)-, ethyl ester (9CI) (CA INDEX NAME)



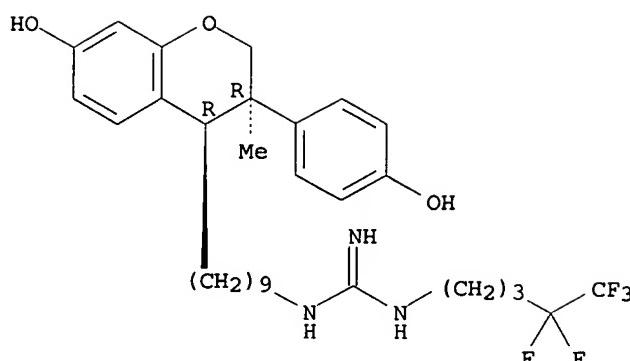
IT 252945-11-2P 252945-19-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(target compound; preparation of benzopyran and benzothiopyran derivs.
with antiestrogenic activity for the treatment of breast
cancer)

RN 252945-11-2 HCAPLUS

CN Guanidine, N-[9-[(3R,4R)-3,4-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-3-methyl-2H-1-benzopyran-4-yl]nonyl]-N'-(4,4,5,5,5-pentafluoropentyl)-, monohydrochloride, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

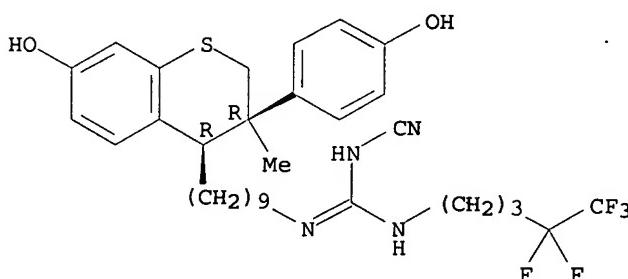


● HCl

RN 252945-19-0 HCAPLUS

CN Guanidine, N-cyano-N'-(9-[(3R,4R)-3,4-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-3-methyl-2H-1-benzothiopyran-4-yl]nonyl)-N''-(4,4,5,5,5-pentafluoropentyl)-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IC ICM C07D311-84

ICS C07D407-04; C07D405-04; C07D409-04; C07D413-04; A61K031-35

CC 27-15 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s) : 1

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 252949-55-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of benzopyran and benzothiopyran derivs.
 with antiestrogenic activity for the treatment of breast cancer)

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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compound; preparation of benzopyran and benzothiopyran derivs.
 with antiestrogenic activity for the treatment of breast cancer)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE

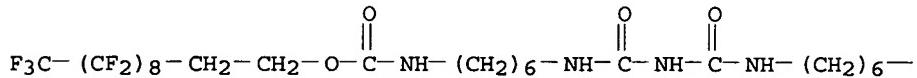
IN THE RE FORMAT

L114 ANSWER 23 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1999:439776 HCAPLUS
 DOCUMENT NUMBER: 131:103485
 TITLE: Fire-resistant, antifungus, and water-repellent polyester fibers and its production
 INVENTOR(S): Ikeyama, Seimi; Amano, Jirou
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

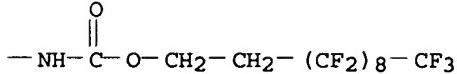
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11189977	A2	19990713	JP 1997-354763	1997 1224
JP 3580110	B2	20041020	JP 1997-354763	1997 1224
PRIORITY APPLN. INFO.:				

- AB The title fibers are prepared by treating polyester fibers [e.g., of PET, poly(butylene terephthalate)] with linear or cyclic amino-and/or phenoxy-containing phosphazene compds. (e.g., 1,1-diamino-3,3,5,5-tetraphenoxy cyclotriphosphazene) to have solid pick up 1.5-10%, then treating with benzimidazole derivs. (e.g., 2-methoxycarbonylamino benzimidazole) and polyfluoroalkyl-containing urethane compds. [e.g., HN[CONH(CH₂)₆NHCO₂CH₂CH₂C₉F₁₉]₂] to have solids content 0.1-5 and 0.1-5%, resp.
- IT 230967-86-9
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (water-repellent agents; fire-resistant polyester fibers with antifungus and water repellent properties and production)
- RN 230967-86-9 HCAPLUS
- CN 2,9,11,13,20-Pentaazaeicosanedioic acid, 10,12-dioxo-, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoroundecyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



- IC ICM D06M015-564
 ICS D06M013-44; D06M013-473
 CC 40-9 (Textiles and Fibers)

Section cross-reference(s): 5
 IT 51-79-6D, Urethane, derivs., perfluoroalkyl group containing
230967-86-9
 RL: MOA (Modifier or additive use); TEM (Technical or engineered
 material use); USES (Uses)
 (water-repellent agents; fire-resistant polyester fibers with
 antifungus and water repellent properties and production)

L114 ANSWER 24 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1999:96419 HCPLUS
 DOCUMENT NUMBER: 130:169048
 TITLE: High temperature-stable fluoroochemicals as
 hydrophobic and oleophobic additives for
 synthetic organic polymers
 INVENTOR(S): Klun, Thomas P.; Gasper, Alton J.; Temperante,
 John A.
 PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Company,
 USA
 SOURCE: PCT Int. Appl., 54 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9905345	A1	19990204	WO 1997-US22227	1997 1205
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6127485	A	20001003	US 1997-901363	1997 0728
CA 2297145	AA	19990204	CA 1997-2297145	1997 1205
AU 9853727	A1	19990216	AU 1998-53727	1997 1205
EP 1000184	A1	20000517	EP 1997-950832	1997 1205
EP 1000184 R: DE, FR, GB, IT, NL, SE JP 2001511477	B1 T2	20030820 20010814	JP 2000-504310	1997 1205
US 6262180	B1	20010717	US 2000-609191	2000 0630
HK 1028796	A1	20040716	HK 2000-106965	2000 1101
PRIORITY APPLN. INFO.:			US 1997-901363	A 1997 0728

WO 1997-US22227

W

1997
1205

AB [(Rf)_nQOCO]pA, [(Rf)_nQCO₂]pA', [(Rf)_nQNRCO]pA, and [(Rf)_nQCONR]A'
 [Rf = fluoroalkyl, Q = divalent or trivalent linking group where
 the divalent linking group may be a covalent bond, R = H or
 (substituted) alkyl, A = mono- or polyfunctional carboxylic acid
 residue, A' = residue of a mono- or polyfunctional alc. or amine,
 A or A' contain ≥34 C atoms with Q = CH₂CH₂, n = 1 or 2, p
 = 1,2, or many, up to the valency of A or A'] are useful as
 heat-resistant hydrophobic and oleophobic additives for polymers
 in the manufacture of films, moldings, and fibers. A typical additive
 was manufactured by heating Empol 1008 57.8, C₈F₁₇SO₂NMeCH₂CH₂OH 100,
 p-toluenesulfonic acid 1, and PhMe 50 g 18 h at 150°.

IT 220254-71-7DP, urethanes with fluoro alcs.

220254-73-9P 220254-75-1P 220254-77-3P

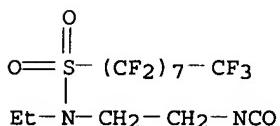
220254-79-5P 220254-82-0P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)

(high temperature-stable fluorochems. as hydrophobic and oleophobic
 additives for synthetic organic polymers)

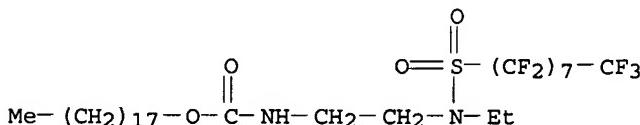
RN 220254-71-7 HCPLUS

CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-
 heptadecafluoro-N-(2-isocyanatoethyl)- (9CI) (CA INDEX NAME)



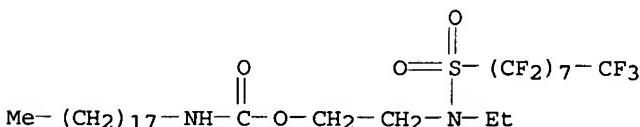
RN 220254-73-9 HCPLUS

CN Carbamic acid, [2-[ethyl[(heptadecafluoroctyl)sulfonyl]amino]ethyl]-, octadecyl ester (9CI) (CA INDEX NAME)



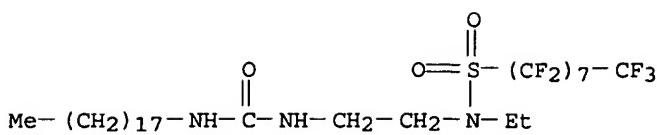
RN 220254-75-1 HCPLUS

CN Carbamic acid, octadecyl-, 2-[ethyl[(heptadecafluoroctyl)sulfonyl]amino]ethyl ester (9CI) (CA INDEX NAME)

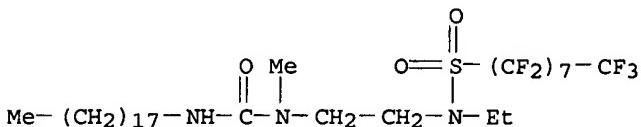


RN 220254-77-3 HCPLUS

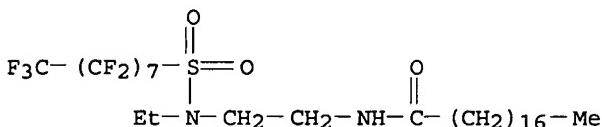
CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-
 heptadecafluoro-N-[2-[(octadecylamino)carbonyl]amino]ethyl]-
 (9CI) (CA INDEX NAME)



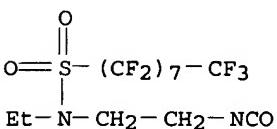
RN 220254-79-5 HCAPLUS
 CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[2-[methyl[(octadecylamino)carbonyl]amino]ethyl]- (9CI) (CA INDEX NAME)



RN 220254-82-0 HCAPLUS
 CN Octadecanamide, N-[2-[ethyl[(heptadecafluoroctyl)sulfonyl]amino]ethyl]- (9CI) (CA INDEX NAME)



IT 220254-71-7P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (precursor; high temperature-stable fluorochems. as hydrophobic and oleophobic additives for synthetic organic polymers)
 RN 220254-71-7 HCAPLUS
 CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-isocyanatoethyl)- (9CI) (CA INDEX NAME)



IC ICM D01F001-10
 ICS C08J005-18; C08K005-10; C08K005-20; D04H001-42; B32B027-18
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 40
 IT 110-15-6DP, Butanedioic acid, esters with fluoro alcs., preparation 112-76-5DP, Stearyl chloride, esters with fluoro alcs. 112-96-9DP, Stearyl isocyanate, oxazolidinones with fluorosulfonamidoxychloroethane 124-04-9DP, Adipic acid, esters with fluoro alcs. 143-07-7DP, Dodecanoic acid, esters with fluoro alcs., preparation 822-06-0DP, HDI, oxazolidinones with fluorosulfonamidoxychloroethane 2991-50-6DP, esters with dimer fatty diols 2991-51-7DP, esters with dimer fatty diols 13406-91-2DP, amides with dimer acid dichlorides 24448-09-7DP, esters with fatty acid dimers 52907-69-4DP, Empol 1043, esters with fluoro alcs. 75518-90-0DP, oxazolidinones with stearyl isocyanate 97745-64-7P 127290-22-6DP, Pripol 1009, esters with fluoro alcs. 139948-97-3DP, Pripol 1004, esters with

fluoro alcs. 150872-29-0DP, Empol 1008, esters with fluoro alcs. 160676-67-5P 160676-71-1P 160676-72-2P 179799-99-6DP, Empol 1070, esters with fluoro carboxylic acids 204019-28-3DP, Empol 1075, urethanes with fluoro isocyanates 220254-52-4P 220254-54-6P 220254-56-8P 220254-59-1DP, esters with dimer fatty diols 220254-61-5P 220254-63-7P 220254-65-9P 220254-67-1P 220254-69-3P 220254-71-7DP, urethanes with fluoro alcs. 220254-73-9P 220254-75-1P 220254-77-3P 220254-79-5P 220254-82-0P 220254-84-2DP, amides with dimer acid dichlorides 220254-86-4P 220254-94-4P 220319-04-0P 220319-06-2P 220355-91-9DP, Kemamine DP 3695, reaction products with fluoro epoxides

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(high temperature-stable fluorochems. as hydrophobic and oleophobic additives for synthetic organic polymers)

IT 24448-09-7P 220254-59-1P 220254-71-7P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (precursor; high temperature-stable fluorochems. as hydrophobic and oleophobic additives for synthetic organic polymers)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 25 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:784179 HCAPLUS
 DOCUMENT NUMBER: 128:96751
 TITLE: Lubricating succinic acid derivatives and magnetic recording material using them
 INVENTOR(S): Furuya, Takahiro; Miyata, Kazushi
 PATENT ASSIGNEE(S): Hitachi Maxell, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09316031	A2	19971209	JP 1996-128466	1996 0523

PRIORITY APPLN. INFO.: JP 1996-128466
 1996
0523

OTHER SOURCE(S): MARPAT 128:96751
 AB R2O2CCHR1CH2CO2-N+HR3R4 (I; R1 = H, nonfluorinated block; R2 = fluorinated or nonfluorinated block; R3-4 = H, fluorinated or nonfluorinated block) are claimed as lubricating materials. The magnetic recording material has a magnetic layer on one side or both sides of a nonmagnetic support, and inside or surface of the magnetic layer contains I. I decrease friction between 2 solid surfaces in sliding against each other, thus the recording material using I has good durability and running property. I are also useful for paints, water- and oil-proofing agents for fibers, mold releases, leveling agents, adhesives, antifoaming agents, lenses, etc.

IT 201155-06-8P
 RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of succinic acid derivs. as lubricating agents and magnetic recording material using them)

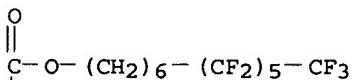
RN 201155-06-8 HCPLUS

CN Butanedioic acid, 2-octadecenyl-, 1-(7,7,8,8,9,9,10,10,11,11,12,12,12-tridecafluorododecyl) ester, compd. with 1-octadecanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 201155-05-7

CMF C34 H51 F13 O4



CM 2

CRN 124-30-1

CMF C18 H39 N

H₂N-(CH₂)₁₇-Me

IC ICM C07C069-40

ICS C07C069-63; C07C211-03; C07C211-15; C07C217-08; C10M105-36; C10M105-54; C10M105-60; G11B005-71; C10N030-06; C10N040-14; C10N050-08

CC 77-8 (Magnetic Phenomena)

Section cross-reference(s): 51

IT 201154-96-3P 201154-98-5P 201154-99-6P 201155-01-3P

201155-02-4P 201155-04-6P 201155-06-8P 201155-08-0P

201155-10-4P 201155-12-6P

RL: DEV (Device component use); PNU (Preparation, unclassified);

TEM (Technical or engineered material use); PREP (Preparation);

USES (Uses)

(preparation of succinic acid derivs. as lubricating agents and magnetic recording material using them)

L114 ANSWER 26 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:180696 HCPLUS

DOCUMENT NUMBER: 126:173146

TITLE: Tricarbonyl group-containing fluoropolymers and surface treating agents based on them for metals

INVENTOR(S): Tsuchida, Katsuyuki; Kumagai, Masashi

PATENT ASSIGNEE(S): Japan Enajii Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 09003128	A2	19970107	JP 1995-151701	1995 0619

PRIORITY APPLN. INFO.:

JP 1995-151701

1995
0619

AB Title agents giving corrosion resistance, water and oil repellency for metals (especially, Cu, steel, Al), are based on (A) tricarbonyl group-containing fluoropolymers having repeating units $\text{CH}_2\text{CH}[\text{R}_3\text{OzCOCH}(\text{COOxR}_1)(\text{COOyR}_2)]$ [including their enol forms; R₁, R₂ = (F-substituted) C1-10 alkyl, R₁ and/or R₂ = F-substituted alkyl; R₃ = single bond, C1-8 alkylene; x, y, z = 0, 1], (B) homopolymer of $\text{R}_2\text{OyCOCH}(\text{COOxR}_1)\text{COOzR}_4$ [I; including their enol forms; R₁, R₂, R₄ = (F-substituted) C1-10 alkyl, double bond-terminated C2-10 alkenyl, at least one of them is the alkenyl group and at least one of the other is the F-substituted alkyl group; x, y, z = 0, 1], or (C) copolymers manufactured from I and vinyl compds. Thus, 6.6 g allyl acetoacetate was treated with 20.0 g perfluorooctanoyl chloride at 50° for 3 h in the presence of Mg and filtered to obtain $\text{MeCOCH}(\text{COC}_7\text{F}_{15})\text{CO}_2\text{CH}_2\text{CH}_2:\text{CH}_2$, 5.0 g of which was polymerized at 150° for 24 h in the presence of di-tert-Bu peroxide, washed with hexane, and dried to obtain a polymer. THF containing 6% the polymer was applied on a Cu foil and dried at 150° for 30 min to give a test piece showing contact angle for H₂O 104° and for dodecane 52° and good moisture resistance.

IT 187225-68-9P 187225-69-0P

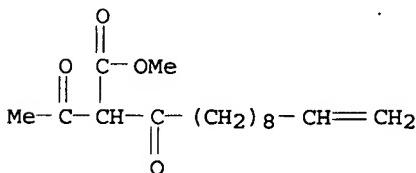
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(tricarbonyl group-containing fluoropolymer anticorrosive coatings with good oil and water repellency for metals)

RN 187225-68-9 HCPLUS**CN** 12-Tridecanoic acid, 2-acetyl-3-oxo-, methyl ester, polymer with 2-propenyl 2-acetyl-4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-pentadecafluoro-3-oxodecanoate (9CI) (CA INDEX NAME)

CM 1

CRN 186537-54-2

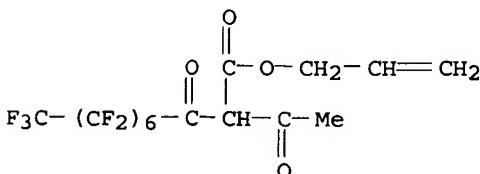
CMF C16 H26 O4



CM 2

CRN 172211-80-2

CMF C15 H9 F15 O4



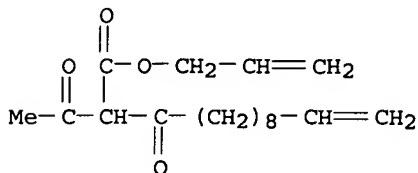
RN 187225-69-0 HCPLUS

CN 12-Tridecenoic acid, 2-acetyl-3-oxo-, 2-propenyl ester, polymer with 2-propenyl 2-acetyl-4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-pentadecafluoro-3-oxodecanoate (9CI) (CA INDEX NAME)

CM 1

CRN 186531-56-6

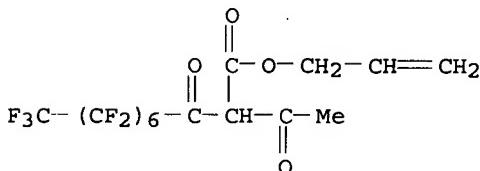
CMF C18 H28 O4



CM 2

CRN 172211-80-2

CMF C15 H9 F15 O4



IC ICM C08F018-20

ICS C08F016-36; C08F018-12; C08F018-14; C09D005-00; C09D005-08

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 55, 56

IT 186537-54-2P 187225-68-9P 187225-69-0P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(tricarbonyl group-containing fluoropolymer anticorrosive coatings with good oil and water repellency for metals)

L114 ANSWER 27 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:761356 HCAPLUS

DOCUMENT NUMBER: 126:32989

TITLE: Waterproofing, fireproofing, antifungal, and antisoiling polyester fiber products and their manufacture

INVENTOR(S): Umeki, Hideo; Shiotani, Takashi

PATENT ASSIGNEE(S): Toray Industries, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 08260352	A2	19961008	JP 1995-69952	1995 0328

PRIORITY APPLN. INFO.:

JP 1995-69952

1995
0328

AB The title products, e.g. curtains, are manufactured by treatment in a dyeing bath containing 1.0-20% halocycloalkanes at $\geq 100^\circ$ at bath ratio (1:50)-(1:5), then treatment with solns. containing 0.05-10% benzimidazoles and 0.05-10% polyfluoroalkyl group-containing urethanes. Thus, a polyester plain weave fabric was soaked in a dyeing bath containing 1,2,5,6,9,10-hexabromocyclododecane, then soaked in a solution containing C9F19(CH₂)₂02CNH(CH₂)₆NH[CON(CH₂)₆NHCO₂(CH₂)₂C9F19]₂H and 2-methoxycarbonylaminobenzimidazole to give an antifungal and water- and fire-proofing fabric.

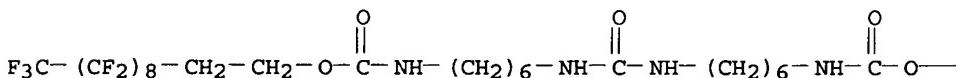
IT 184530-13-0

RL: MOA (Modifier or additive use); USES (Uses)
(waterproofer; water- and fireproofing, antifungal, and
antisoiling polyester fabrics containing benzimidazoles,
polyfluoroalkylurethanes, and halocycloalkanes)

RN 184530-13-0 HCPLUS

CN 2,9,11,18-Tetraazanonadecanedioic acid, 10-oxo-,
bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-
nonadecafluoroundecyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— CH₂— CH₂— (CF₂)₈— CF₃

IC ICM D06M013-352
ICS D06M013-08; D06M013-428; D06P003-52

ICI D06M101-32**CC** 40-9 (Textiles and Fibers)**IT** 184530-13-0

RL: MOA (Modifier or additive use); USES (Uses)
(waterproofer; water- and fireproofing, antifungal, and
antisoiling polyester fabrics containing benzimidazoles,
polyfluoroalkylurethanes, and halocycloalkanes)

L114 ANSWER 28 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:855942 HCPLUS

DOCUMENT NUMBER: 123:257260

TITLE: Preparation of ganglioside GM3 derivative
having fluorinated ceramide moiety as
anticancer agent and cancer metastasis
inhibitor

INVENTOR(S): Iida, Takao; Ohira, Yutaka

PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 85 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

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WO 9507302	A1	19950316	WO 1994-JP1495
			1994 0909
W: AU, US			
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE			
JP 07126278	A2	19950516	JP 1993-331661
			1993 1227
AU 9476241	A1	19950327	AU 1994-76241
			1994 0909
AU 680047	B2	19970717	
EP 672686	A1	19950920	EP 1994-926380
			1994 0909
EP 672686	B1	19981216	
R: DE, FR, GB, SE			
US 5583208	A	19961210	US 1995-432185
			1995 0508
PRIORITY APPLN. INFO.:		JP 1993-225764	A
			1993 0910
		JP 1993-331661	A
			1993 1227
		WO 1994-JP1495	W
			1994 0909

OTHER SOURCE(S) : CASREACT 123:257260; MARPAT 123:257260
GI

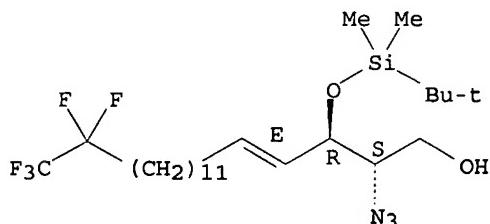
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT
*

AB A ganglioside GM3 derivative having a fluorinated ceramide moiety, represented by general formula (I; A1 = β -OQ; R1 = R2 = R12 - R17 = H; R = alkyl or fluoroalkyl; m = an integer of ≥ 2 ; n = an integer of 0-7, provided that m is greater than n), which inhibits the proliferation of mouse fibroblast A31 cells (no data), is prepared by glycosidation of lactose derivative [II; R11 - R17 = H, HO-protecting group; R18 = tri(C1-4 alkyl)silylethyl] with sialic acid derivative [III; R1 = HO-protecting group; R2 = HO2C-protecting group; R3 = C1-10 alkyl, (un)substituted Ph] in the presence of N-iodosuccinimide and trifluoromethanesulfonic acid salt to give an intermediate I [A1 = β -2-tri(C1-4 alkyl)silylethoxy; R1 = HO-protecting group; R2 = HO2C-protecting group; R11 - R17 = H, HO-protecting group]. A fluorinated 2-azidosphingosine (IV; m = an integer of ≥ 2 ; n = an integer of 0-7; R4, R5 = H, HO-protecting group) and a fluorinated α , β -unsatd. aldehyde trans-OHCCH:CH(CH2)m-n(CF2)nCF3 are also prepared as intermediates. Thus, 728 mg II (R11 = R12 = R13 = R15 = H, R14 = R16 = R17 = Bz, R18 = CH2CH2SiMe3) and 460 mg III (R1 = Ac, R2 = R3 = Me) were dissolved in 6 mL anhydrous MeCN, stirred with 2.4 g powdered mol. sieve 4A for 16 h, and cooled to -45°, followed by successively adding 820 mg N-iodosuccinimide and 140 mg CF3SO3NBu4 and stirring the resulting

mixture for 2 h at -45° to -40° to give 48.0% I (A1 = β -OCH₂CH₂SiMe₃, R1 = Ac, R2 = Me, R12 = R13 = R15 = H, R14 = R16 = R17 = Bz). The latter intermediate was converted into a trichloroacetimidate I [A1 = α -OC(:NH)CCl₃; R1, R2, R12 - R17 = same as above] which was glycosidated with IV (R4 = Bz, R5 = H, m = 12, n = 0) (preparation given) in the presence of mol. sieve 4A and Et₂O·BF₃ at 0° for 30 min to give 84.4% I (A1 = β -Q1; R1, R2, R12 - R17 = same as above). The latter compound was reduced by H₂S in aqueous pyridine, condensed with tetracosanoic acid in the presence of 1-ethyl-3-(3-dimethylaminopropyl) carbodiimide hydrochloride in CH₂Cl₂, and successively treated with NaOMe/MeOH and H₂O to give, after column chromatog. using Amberlite IR120 (H⁺), a title ganglioside GM3 I (A1 = β -Q; wherein R = C₂₃H₄₇, m = 12, n = 0; R1 = R2 = R12 - R17 = H).

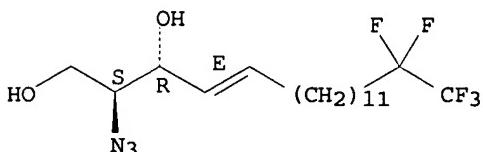
- IT 168964-46-3P 168964-47-4P 168964-53-2P
 168964-56-5P 168964-60-1P 168964-61-2P
 168964-80-5P, trans-15,15,16,16,16-Pentafluoro-2-hexadecenal
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate for preparation of ganglioside GM3 derivs. having fluorinated ceramide moieties as anticancer agents and cancer metastasis inhibitors)
- RN 168964-46-3 HCPLUS
 CN 4-Octadecen-1-ol, 2-azido-3-[(1,1-dimethylethyl)dimethylsilyl]oxy]-17,17,18,18,18-pentafluoro-, [R-[R*,S*-(E)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

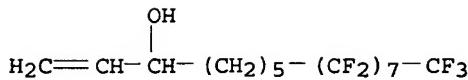


- RN 168964-47-4 HCPLUS
 CN 4-Octadecene-1,3-diol, 2-azido-17,17,18,18,18-pentafluoro-, [R-[R*,S*-(E)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

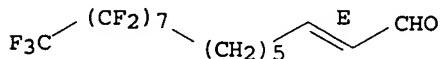


- RN 168964-53-2 HCPLUS
 CN 1-Hexadecen-3-ol, 9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16-heptadecafluoro- (9CI) (CA INDEX NAME)



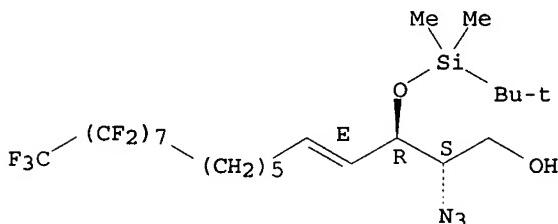
RN 168964-56-5 HCPLUS
 CN 2-Hexadecenal, 9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,
 heptadecafluoro-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



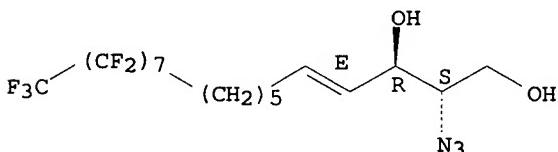
RN 168964-60-1 HCPLUS
 CN 4-Octadecen-1-ol, 2-azido-3-[(1,1-dimethylethyl)dimethylsilyl]oxy
]-11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-
 heptadecafluoro-, [R-[R*,S*-(E)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.



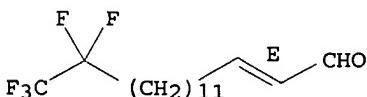
RN 168964-61-2 HCPLUS
 CN 4-Octadecene-1,3-diol, 2-azido-11,11,12,12,13,13,14,14,15,15,16,16
 ,17,17,18,18,18-heptadecafluoro-, [R-[R*,S*-(E)]]- (9CI) (CA
 INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.



RN 168964-80-5 HCPLUS
 CN 2-Hexadecenal, 15,15,16,16,16-pentafluoro-, (E)- (9CI) (CA INDEX
 NAME)

Double bond geometry as shown.



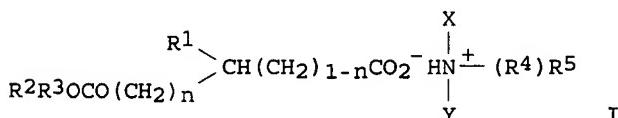
IC ICM C08B037-00
 CC 33-8 (Carbohydrates)
 Section cross-reference(s) : 1

IT 73782-54-4P, 12,12,13,13,13-Pentafluorotridecanol 121377-31-9P
 121377-32-0P 124477-22-1P 129794-54-3P, 6-Perfluoroctyl-1-hexanol 168964-28-1P 168964-29-2P 168964-30-5P
 168964-31-6P 168964-32-7P 168964-33-8P 168964-34-9P
 168964-35-0P 168964-36-1P 168964-37-2P 168964-38-3P
 168964-39-4P 168964-40-7P 168964-41-8P 168964-42-9P
 168964-43-0P 168964-44-1P 168964-45-2P 168964-46-3P
168964-47-4P 168964-48-5P 168964-49-6P 168964-50-9P
 168964-51-0P 168964-52-1P **168964-53-2P** 168964-54-3P
 168964-55-4P **168964-56-5P** 168964-57-6P 168964-58-7P
 168964-59-8P **168964-60-1P** **168964-61-2P**
 168964-62-3P 168964-63-4P 168964-64-5P 168964-65-6P
 168964-66-7P 168964-67-8P 168964-68-9P 168964-69-0P
 168964-75-8P, 14,14,14-Trifluoro-1-tetradecanol 168964-76-9P,
 14,14,14-Trifluorotetradecanal 168964-77-0P,
 6-(Perfluoroctyl)hexanal 168964-79-2P, 13-Bromo-1,1,2,2-pentafluorotridecane **168964-80-5P**, trans-15,15,16,16,16-Pentafluoro-2-hexadecenal 169106-07-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate for preparation of ganglioside GM3 derivs. having fluorinated ceramide moieties as anticancer agents and cancer metastasis inhibitors)

L114 ANSWER 29 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:735395 HCPLUS
DOCUMENT NUMBER: 123:274145
TITLE: Fluorine-containing carboxylic acid amine salt
and a magnetic recording medium using it as a
lubricant
INVENTOR(S): Kai, Yoshiaki; Ohchi, Yukikazu
PATENT ASSIGNEE(S): Matsushita Electric Industrial Co., Ltd.,
Japan
SOURCE: Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 652206	A2	19950510	EP 1994-116405	1994 1018
EP 652206	A3	19951220		
EP 652206	B1	19990714		
R: DE, FR, GB, NL				
JP 07173105	A2	19950711	JP 1994-251874	1994 1018
PRIORITY APPLN. INFO.:			JP 1993-260757	A 1993 1019

OTHER SOURCE(S) : MARPAT 123:274145
GI



AB The carboxylic acid amine salt has the formula I, where R1 = C6-30 alkyl or alkenyl; R2 = C3-30 fluoroalkyl or fluoroalkenyl, C6-18 fluorophenyl, or C5-50 fluoroalkyl ether; R3,R4 = C1-20 saturated or unsatd. hydrocarbon; R5 = C3-30 fluoroalkyl or fluoroalkenyl; n = 0 or 1; X = H or -(R6)R7; Y = H or -(R8)R9; R6,R8 = C1-20 saturated or unsatd. hydrocarbon; and R7,R9 = C3-30 fluoroalkyl or fluoroalkenyl. A magnetic recording medium comprises a base film, a ferromagnetic film, and a lubricant layer either directly on the ferromagnetic film or on a protective film; the lubricant layer contains ≥ 1 F-containing carboxylic acid amine salt (I).

IT 166306-98-5
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (as lubricant for magnetic recording medium)

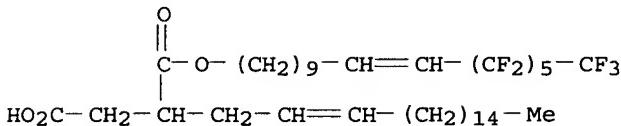
RN 166306-98-5 HCPLUS

CN Butanedioic acid, 2-octadecenyl-, 1-(12,12,13,13,14,14,15,15,16,16,17,17,17-tridecafluoro-10-heptadecenyl) ester, compd. with 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-1-undecanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 166306-97-4

CMF C39 H59 F13 O4



CM 2

CRN 139175-50-1

CMF C11 H8 F17 N

H₂N- (CH₂)₃- (CF₂)₇- CF₃

IC ICM C07C211-15
 ICS C07C211-24; C07C069-63; C07C069-65; G11B005-71; C10M105-60
 ICI C10N040-18
 CC 77-8 (Magnetic Phenomena)
 IT 166306-98-5 169397-35-7
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (as lubricant for magnetic recording medium)

L114 ANSWER 30 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:32815 HCPLUS

DOCUMENT NUMBER: 120:32815

TITLE: Washfast durable water and oil repellents

INVENTOR(S): Maekawa, Takashige; Yoshioka, Ryoko; Kamata, Takashi; Ishida, Mika; Kumai, Seisaku

PATENT ASSIGNEE(S): Asahi Glass Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05171136	A2	19930709	JP 1992-84589	1992 0306
PRIORITY APPLN. INFO.:			JP 1991-73995	A1 1991 0313

AB The title agents are based on polymers of fluoroalkyl group-containing monomers forming homopolymers showing the polyfluoroalkyl group-based crystallite m.p. $\geq 100^\circ$.

$\text{CF}_3(\text{CF}_2)9\text{CH}_2\text{CH}_2\text{O}_2\text{CCH}:\text{CH}_2$ was polymerized in the presence of AIBN in 1,1,2-trichlorotrifluoroethane, and the resulting polymer (as 1% solution) was used for finishing polyester fabric.

IT 152049-77-9P 152070-15-0P

RL: PREP (Preparation)
(manufacture of, for oil- and waterproofing textile finishes,
washfast)

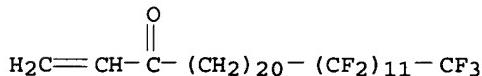
RN 152049-77-9 HCAPLUS

CN 2-Propenoic acid, 21,21,22,22,23,23,24,24,25,25,26,26,27,27,28,28,
29,29,30,30,30-heneicosafluorotriacontyl ester, polymer with
24,24,25,25,26,26,27,27,28,28,29,29,30,30,31,31,32,32,33,33,34,34,
35,35,35-pentacosafluoro-1-pentatriaconten-3-one (9CI) (CA INDEX
NAME)

CM 1

CRN 152049-76-8

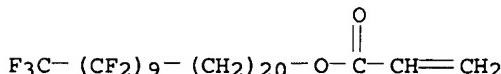
CMF C35 H43 F25 O



CM 2

CRN 152049-66-6

CMF C33 H43 F21 O2



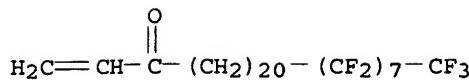
RN 152070-15-0 HCAPLUS

CN 2-Propenoic acid, 21,21,22,22,23,23,24,24,25,25,26,26,27,27,28,28,
29,29,30,30,30-heneicosafluorotriacontyl ester, polymer with
24,24,25,25,26,26,27,27,28,28,29,29,30,30,31,31,32,32,33,33,34,34,
35,35,35-pentacosafluoro-1-pentatriaconten-3-one (9CI) (CA INDEX NAME)

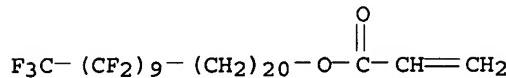
CM 1

CRN 152049-72-4

CMF C31 H43 F17 O



CM 2

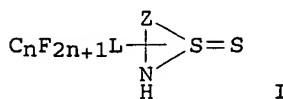
CRN 152049-66-6
CMF C33 H43 F21 O2

IC ICM C09K003-18
 ICS C08F016-24; C08F020-22; D06M015-277
 ICA C09D005-00; C09D129-10
 CC 40-9 (Textiles and Fibers)
 IT 152049-67-7P 152049-69-9P 152049-71-3P 152049-73-5P
 152049-75-7P 152049-77-9P 152049-78-0P 152049-80-4P
 152049-81-5P 152049-82-6P 152049-84-8P 152070-12-7P
 152070-14-9P 152070-15-0P
 RL: PREP (Preparation)
 (manufacture of, for oil- and waterproofing textile finishes,
 washfast)

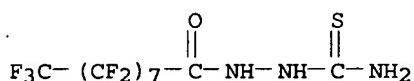
L114 ANSWER 31 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1993:673523 HCPLUS
 DOCUMENT NUMBER: 119:273523
 TITLE: Oil- and water-repellent method for heavy
 metal surfaces with perfluoroalkyl thiones
 INVENTOR(S): Futaki, Kyoshi; Iguchi, Shigeru; Takada,
 Masakazu
 PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 05023645	A2	19930202	JP 1991-207521	1991 0723
PRIORITY APPLN. INFO.:			JP 1991-207521	1991 0723

OTHER SOURCE(S): MARPAT 119:273523
 GI



- AB The title thiones or their corresponding thiols are I or C_nH_{2n+1}LHNHC:SNHR (L = hydrocarbylene; R = H, low alkyl, low alkenyl, aryl; Z = thiadiazoline, triazoline tetrazoline, dihydrotriazine, tetrahydrotriazine ring residues; n = 6-9). Thus, a Ag plated substrate was treated with a MeOH solution of C8F17CONHNHCSNH2 (prepared from thiosemicarbamide and perfluorononanoyl chloride) to give a surface with linseed oil contact angle 77.9° and water contact angle 123.7°.
- IT 150502-54-8P
 RL: PREP (Preparation)
 (manufacture of, as oil- and water-repellent agents, for heavy metals)
- RN 150502-54-8 HCPLUS
 CN Nonanoic acid, heptadecafluoro-, 2-(aminothioxomethyl)hydrazide (9CI) (CA INDEX NAME)



- IC ICM B05D007-24
 ICS B05D005-08; B05D007-14; C09K003-18
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 55, 56
 IT 150502-50-4P 150502-51-5P 150502-52-6P 150502-53-7P
 150502-54-8P 150523-74-3P
 RL: PREP (Preparation)
 (manufacture of, as oil- and water-repellent agents, for heavy metals)

L114 ANSWER 32 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1992:153950 HCPLUS
 DOCUMENT NUMBER: 116:153950
 TITLE: Urethanes from aliphatic fluoroalcohols,
 isocyanates and carboxylic acids as finishes
 for textiles
 INVENTOR(S): Knaup, Wolfgang; Kupfer, Rainer; Kleber, Rolf;
 Jaeckel, Lothar; Gohlke, Fritz Joachim
 PATENT ASSIGNEE(S): Hoechst A.-G., Germany
 SOURCE: Eur. Pat. Appl., 21 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 435220	A2	19910703	EP 1990-125271	1990 1221
EP 435220	A3	19911121		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL				
DE 3943127	A1	19910704	DE 1989-3943127	1989 1228
US 5171877	A	19921215	US 1990-633806	1990 1226
CA 2033313	AA	19910629	CA 1990-2033313	1990 1227
JP 03294258	A2	19911225	JP 1990-409119	

PRIORITY APPLN. INFO.:

DE 1989-3943127

A

1990
1228
1989
1228

AB The urethanes R[ZCONHZ1[NHCO[OCH(CH₂Cl)CH₂]yO(CH₂)xRf]NHCO[OCH(CH₂Cl)CH₂]mO(CH₂)nRf]s [R = residue of a carboxylic acid (functionality 1-5) or salt; Rf, Rf1 = C₄-22 perfluoroalkyl; Z = direct bond, O, imino; Z1 = trivalent (cyclo)aliphatic or aromatic group; m, x = 1-4; n, y = 0-7, s = 1-3] are useful as water-, oil-, and soilproofing finishes for textiles. The reaction of 1 mol diurethane from HMDI biuret triisocyanate, C₁₀F₂₁CH₂CH₂OH, and C₁₀F₂₁CH₂CH₂O[CH₂CH(CH₂Cl)O]₂H with 1 mol citric acid gave a triurethane (I). Polyamide fabrics finished with I (0.05% F based on fibers) and condensed at 200° for 30 s had oilproofing rating (AATCC standard 118) 6, waterproofing rating (DIN 53 888, 1965) 5, and soilproofing rating (5 best, 1 worst) 3; vs. 5, 5, and 4, resp., after 3 h of alkaline washing.

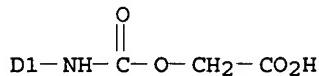
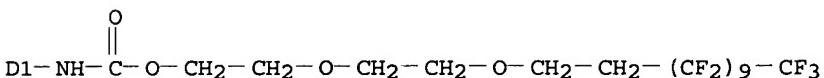
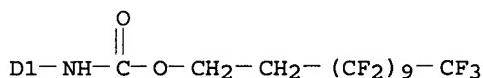
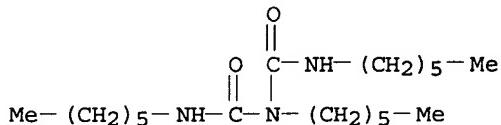
IT 137112-83-5P 137112-84-6P 137133-95-0P
137133-97-2P 137151-33-8P 137172-80-6P

RL: PREP (Preparation)
(manufacture of, as waterproofing and soilproofing finishes for fabrics)

RN 137112-83-5 HCPLUS

CN 20-Oxa-2,9,11,18-tetraazadocosanedioic acid, 9-(or 11)-[6-(carboxyamino)hexyl]-10,19-dioxo-, mono[(chloromethyl)[(chloromethyl)-2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl)oxy]ethoxy]ethyl]mono(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

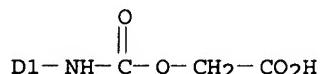
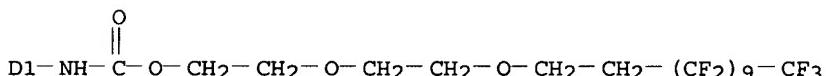
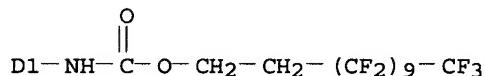
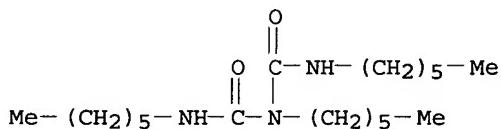
$$2 \left[\text{D1}-\text{CH}_2-\text{Cl} \right]$$

RN 137112-84-6 HCAPLUS
 CN 20-Oxa-2,9,11,18-tetraazadocosanedioic acid, 9(or
 11)-[6-(carboxyamino)hexyl]-10,19-dioxo-,
 mono[(chloromethyl)[(chloromethyl)-2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,
 ,9,10,11,11,12,12,12-heneicosafafluorododecyl)oxy]ethoxy]ethyl]
 mono(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-
 heneicosafafluorododecyl) ester, compd. with 2-aminoethanol (1:1)
 (9CI) (CA INDEX NAME)

CM 1

CRN 137112-83-5
 CMF C55 H62 Cl2 F42 N6 O12
 CCI IDS

PAGE 1-A



PAGE 2-A

2 [D1-CH₂-Cl]

CM 2

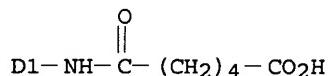
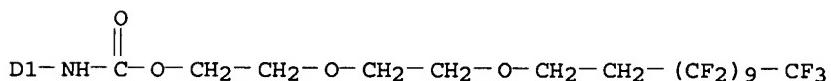
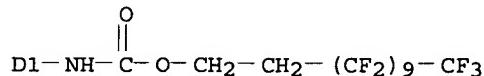
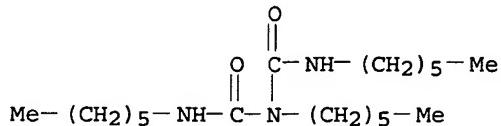
CRN 141-43-5
 CMF C2 H7 N O

 $\text{H}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{OH}$

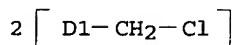
RN 137133-95-0 HCAPLUS
 CN 2,9,11,18-Tetraazatetracosanedioic acid, 9(or 11)-[[6-(carboxyamino)hexyl]amino]carbonyl]-, mono[(chloromethyl)-2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafafluorododecyl)oxy]ethoxy]ethyl]

mono(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A

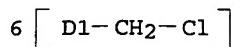
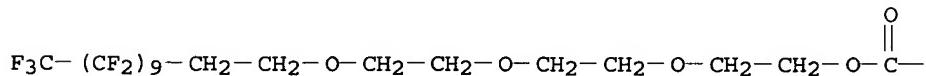


PAGE 2-A

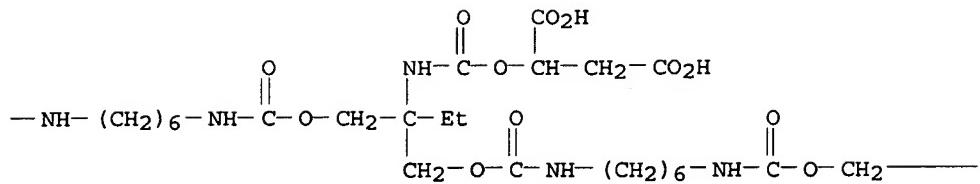


RN 137133-97-2 HCPLUS
 CN 11,15-Dioxa-2,9,17,24-tetraazapentacosanedioic acid,
 13-[[[(1,2-dicarboxyethoxy)carbonyl]amino]-13-ethyl-,
 1,25-bis[(chloromethyl)-2-[(chloromethyl)-2-[(chloromethyl)-2-
 [(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11,11-
 heneicosafuoroundecyl)oxy]ethoxy]ethoxy]ethyl] ester (9CI) (CA
 INDEX NAME)

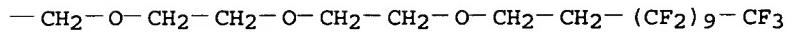
PAGE 1-A



PAGE 1-B



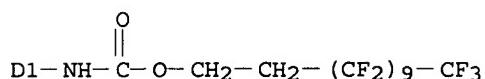
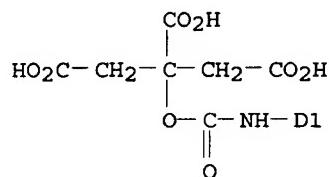
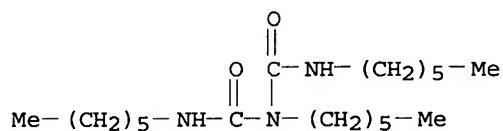
PAGE 1-C



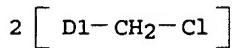
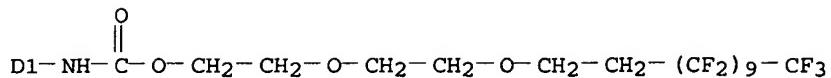
RN 137151-33-8 HCAPLUS

CN 2,9,11,18-Tetraazanonadecanedioic acid, 9(or 11)-[[[6-(carboxyamino)hexyl]amino]carbonyl]-10-oxo-, 1,2-dicarboxy-1-(carboxymethyl)ethyl (chloromethyl)-2-[(chloromethyl)-2-[3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosfluorododecyl)oxy]ethoxyethyl 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosfluorododecyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

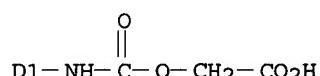
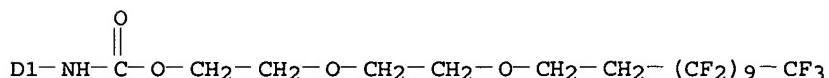
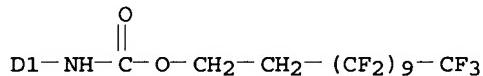
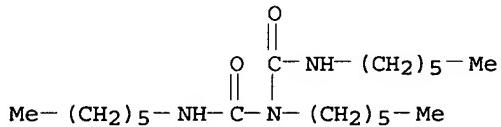


RN 137172-80-6 HCAPLUS
 CN Carbamic acid, [[6-(carboxyamino)hexyl]imino]bis(carbonylimino-6,1-hexanediyil)]bis-, carboxymethyl (chloromethyl)-2-[{(chloromethyl)-2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl)oxy]ethoxy}ethyl 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl ester, compd. with 1-dodecanamine (1:1) (9CI) (CA INDEX NAME)

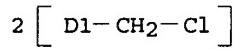
CM 1

CRN 137112-83-5
 CMF C55 H62 Cl2 F42 N6 O12
 CCI IDS

PAGE 1-A



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CM 2

CRN 124-22-1

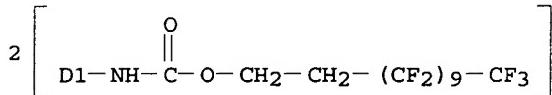
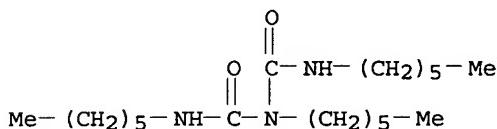
CMF C12 H27 N

 $\text{H}_2\text{N}-\text{(CH}_2\text{)}_{11}-\text{Me}$

IT 137133-94-9 137151-31-6 137151-32-7

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with carboxylic acids)

RN 137133-94-9 HCAPLUS

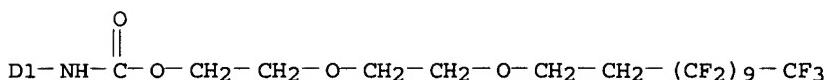
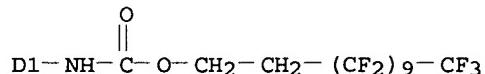
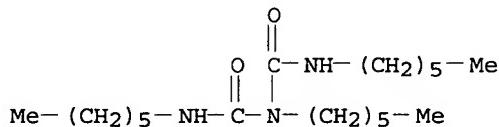
CN Imidodicarbonic diamide, N,N',2-tris(6-isocyanatohexyl)-, adduct
with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-
heneicosfluoro-1-dodecanol (1:2) (9CI) (CA INDEX NAME)

D1-NCO

RN 137151-31-6 HCAPLUS

CN Imidodicarbonic diamide, [bis(chloromethyl)-
18,18,19,19,20,20,21,21,22,22,23,23,24,24,25,25,26,26,27,27,27-
heneicosfluoro-8-oxo-9,12,15-trioxa-7-azaheptacos-1-yl] [6-
[[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-
heneicosfluorododecyl)oxy]carbonyl]amino]hexyl]isocyanato- (9CI)
(CA INDEX NAME)

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D1-NCO

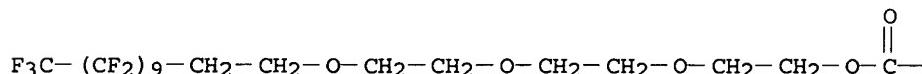
PAGE 2-A

$$2 \left[\text{D1-CH}_2\text{-Cl} \right]$$

RN 137151-32-7 HCAPLUS

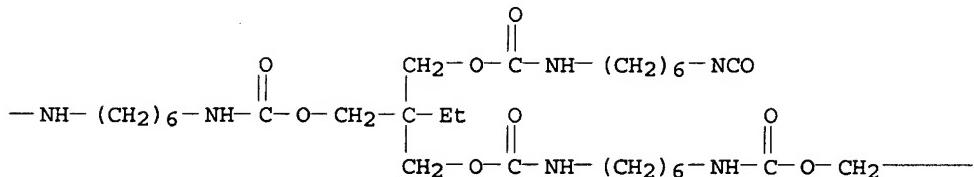
CN 11,15-Dioxa-2,9,17,24-tetraazapentacosanedioic acid,
 13-ethyl-13-[[[[(6-isocyanatohexyl)amino]carbonyl]oxy]methyl]-
 10,16-dioxo-, bis[(chloromethyl)-2-[(chloromethyl)-2-
 [(chloromethyl)-2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,
 12-heneicosafluorododecyl)oxy]ethoxy]ethoxy]ethyl ester (9CI)
 (CA INDEX NAME)

PAGE 1-A

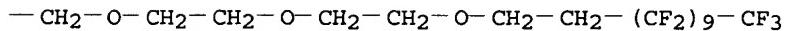


$$6 \left[\text{D1-CH}_2\text{-Cl} \right]$$

PAGE 1-B



PAGE 1-C



IC ICM C07C027-28

ICS C07C275-14; C07D251-32; C07C271-20; D06M013-425; D06M013-432

CC 42-9 (Coatings, Inks, and Related Products)

Section cross-reference(s): 23, 40

IT 137112-83-5P 137112-84-6P 137133-95-0P

137133-96-1P 137133-97-2P 137134-04-4P 137134-05-5P

137151-33-8P 137151-34-9P 137172-80-6P

137179-08-9P 140114-42-7P

RL: PREP (Preparation)

(manufacture of, as waterproofing and soilproofing finishes for

fabrics)

IT 137133-94-9 137151-31-6 137151-32-7
140114-41-6RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with carboxylic acids)

L114 ANSWER 33 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:452032 HCPLUS

DOCUMENT NUMBER: 115:52032

TITLE: Waxes for skis giving consistent sliding for
long timesINVENTOR(S): Tokui, Yasuyuki; Tanaka, Isao; Morimoto,
Takuo; Ohtoshi, Sachio; Yamauchi, Masaru

PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan; Asics Corp.

SOURCE: Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 421303	A2	19910410	EP 1990-118706	1990 0928
EP 421303 R: AT, CH, DE, FR, IT, LI, SE JP 03115395	A3 A2	19910731 19910516	JP 1989-251781	1989 0929
JP 07000791 JP 03157495	B4 A2	19950111 19910705	JP 1989-294829	1989 1115
JP 07000792 JP 03157496	B4 A2	19950111 19910705	JP 1989-294830	1989 1115
JP 07076351 JP 03157497	B4 A2	19950816 19910705	JP 1989-294831	1989 1115
JP 07000793 JP 03157494	B4 A2	19950111 19910705	JP 1989-294832	1989 1115
JP 07076350 US 5131674	B4 A	19950816 19920721	US 1990-588848	1990 0927
PRIORITY APPLN. INFO.:			JP 1989-251781	A 1989 0929
			JP 1989-294829	A 1989 1115
			JP 1989-294830	A 1989 1115
			JP 1989-294831	A 1989

1115

JP 1989-294832

A

1989
1115

AB The title wax contains perfluoroalkyl compds. (m.p. $\leq 100^\circ$) and, optionally, paraffin wax. Spreading molten C₁₇F₁₅CO₂C₁₈H₃₇ (m.p. 36°) on skis, cooling at 10° for 8 h, and rubbing to a smooth surface gave skis with initial speed 64.52 km/h and average speed 83.51 km/h; vs. 60.03 and 75.88, resp., with a paraffin wax.

IT 134959-87-8

RL: USES (Uses)

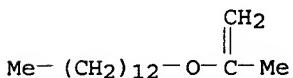
(waxes for skis)

RN 134959-87-8 HCAPLUS

CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester, polymer with 1-[(1-methylethenyl)oxy]tridecane (9CI) (CA INDEX NAME)

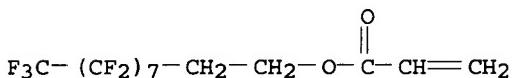
CM 1

CRN 134959-86-7

CMF C₁₆ H₃₂ O

CM 2

CRN 27905-45-9

CMF C₁₃ H₇ F₁₇ O₂

IC ICM C09G003-00

CC 42-11 (Coatings, Inks, and Related Products)

IT 678-39-7 7782-42-5D, Graphite, fluorinated 131883-38-0

134959-87-8

RL: USES (Uses)

(waxes for skis)

L114 ANSWER 34 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:64200 HCAPLUS

DOCUMENT NUMBER: 114:64200

TITLE: Oil-, soil-, and water-repellent compositions for carpets

INVENTOR(S): Sekiya, Hideyuki; Nakamura, Seiichi

PATENT ASSIGNEE(S): Nippon Mektron Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

JP 02209984

A2

19900821

JP 1989-29675

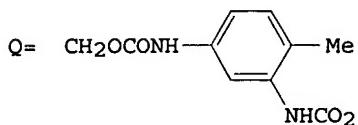
1989
0210

PRIORITY APPLN. INFO.:

JP 1989-29675

1989
0210

GI



AB The title compns. contain (A) aqueous dispersions of $RCnH2nOCONHR1NHCO2R2$ [$R = C \geq 6$ perfluoroalkyl, $R1 =$ hydrocarbylene; $R2 =$ (substituted) hydrocarbyl, $n = 1-4$) or $(RCnH2nOCONH)aR3[NHCO2(C2H4O)mR4]3-a$ ($R3 =$ trivalent hydrocarbon group; $R4 = H$, lower alkyl; $a = 1-2$; $m = 10-100$), (B) aqueous dispersions of perfluoroalkyl (meth)acrylate polymers, and (C) aqueous dispersions of $R5R6C:NOCONHR1NHCO2N:CR5R6$ ($R1 =$ hydrocarbylene, $R5, R6 =$ lower alkyl). Thus, a composition containing (A) 15% aqueous dispersion of $C9F19CH2QMe$ and $EtC(QC2H4C9F19)(Q(C2H4O)46Me)2$, (B) 15% aqueous dispersion of a polymer of $CH2:CCl2$, N-methylolacrylamide, and $CH2:CHCO2C2H4CnF2n+1$ ($n = 6, 8, 10, 12$), and (c) 15% aqueous dispersion of $EtMeC:NOCONH(CH2)6NHCO2N:CMeEt$ at 3:4:3 ratio showed good oil, soil, and water repellency (on nylon carpet).

IT 131630-40-5 131630-48-3

RL: USES (Uses)

(aqueous oil- and soil- and water-repellent dispersions containing, for carpets)

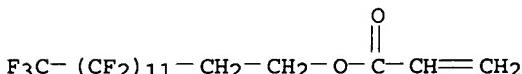
RN 131630-40-5 HCPLUS

CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl ester, polymer with 1,1-dichloroethene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10,10-heptadecafluorodecyl 2-propenoate, N-(hydroxymethyl)-2-propenamide, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-pentacosafluorotetradecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 34395-24-9

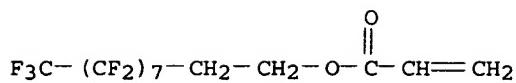
CMF C17 H7 F25 O2



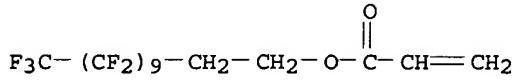
CM 2

CRN 27905-45-9

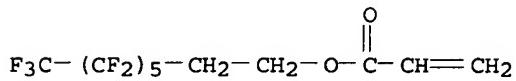
CMF C13 H7 F17 O2



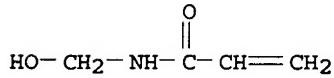
CM 3

CRN 17741-60-5
CMF C15 H7 F21 O2

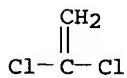
CM 4

CRN 17527-29-6
CMF C11 H7 F13 O2

CM 5

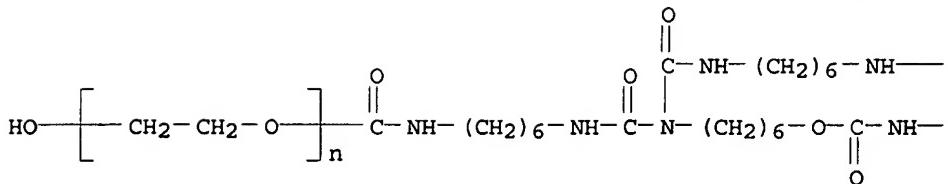
CRN 924-42-5
CMF C4 H7 N O2

CM 6

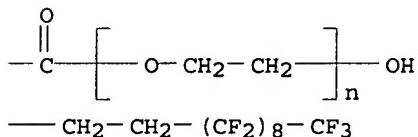
CRN 75-35-4
CMF C2 H2 Cl2

RN 131630-48-3 HCPLUS
 CN Poly(oxy-1,2-ethanediyl), α,α' -[11-[6-
 [[[3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-
 nonadecafluoroundecyl]amino]carbonyl]oxy]hexyl]-1,10,12,21-
 tetraoxo-2,9,11,13,20-pentaazaheneicosane-1,21-diyl]bis[ω -
 hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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IC ICM C09K003-18
 ICS C09K003-20
 ICA D06M013-428; D06M015-277
 CC 40-9 (Textiles and Fibers)
 IT 41704-39-6 77337-86-1 80466-15-5 131630-40-5
 131630-47-2 131630-48-3 131851-91-7
 RL: USES (Uses)
 (aqueous oil- and soil- and water-repellent dispersions containing, for carpets)

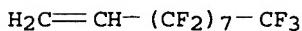
L114 ANSWER 35 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:25475 HCAPLUS
 DOCUMENT NUMBER: 114:25475
 TITLE: Fluoropolymer-coated coasters
 INVENTOR(S): Kamimura, Masakado; Sakata, Shinsuke; Shinjo, Masayoshi
 PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 02159219	A2	19900619	JP 1988-315700	1988 1214
PRIORITY APPLN. INFO.:			JP 1988-315700	1988 1214

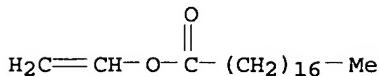
AB The title coasters, with good soilproofing property, no adhesion to cup even at wet condition, and capable for repeated use, have surface layers of C4-21 perfluoroalkyl or alkenyl group-containing compds. Thus, a 1.5-mm paper coaster was coated (0.15 µm) with a 2% [(OCHRCH₂)₄₀(CH₂)₄]₆ [R = CH₂(CF₂)₆CF(CF₃)₂] solution in trifluorochloroethane and dried 30 min to give a coaster having no adhesion to a cup filled with ice water, no soiling by hot coffee drops, and capable to use >10 times, vs. adhered to the cup, soiled by hot coffee, and capable to use only 1 time, for the uncoated coaster.

IT 107066-98-8
 RL: USES (Uses)
 (paper coasters coated with, soilproof, with no adhesion to wet cup)
 RN 107066-98-8 HCPLUS
 CN Octadecanoic acid, ethenyl ester, polymer with
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heptadecafluoro-1-decene
 (9CI) (CA INDEX NAME)
 CM 1
 CRN 21652-58-4
 CMF C10 H3 F17



CM 2

CRN 111-63-7
 CMF C20 H38 O2



IC ICM A47G023-03
 ICS D21H019-20
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 42
 IT 88439-27-4 100044-20-0 107015-33-8 107066-98-8
 125953-58-4 131092-13-2 131092-14-3
 RL: USES (Uses)
 (paper coasters coated with, soilproof, with no adhesion to wet cup)

L114 ANSWER 36 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1990:159790 HCPLUS
 DOCUMENT NUMBER: 112:159790
 TITLE: Plasticizer antibleeding agents and
 thermoplastic resins containing them
 INVENTOR(S): Amimoto, Yoshio; Shinjo, Masayoshi; Takubo,
 Seiji
 PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01242641	A2	19890927	JP 1988-70778	1988 0323
JP 2526630	B2	19960821	JP 1988-70778	1988 0323

PRIORITY APPLN. INFO.:

AB Thermoplastics (e.g., PVC) mixed (or coated) with C4-21 perfluoroalk(en)yl group-containing compds. have smooth, transparent surfaces and good resistance to exudation of plasticizers. A 0.05-mm film of PVC containing 60 phr DOP was spray coated (0.08 µm) with F3CCl containing apprx. 1% F(CF₂)₈CH₂CH₂CNHR (R = 3-methoxycarbonylamino-4-methylphenyl), rolled, and stored 2 wk at 40° and 90% relative humidity to give a film having a dry feel, peel strength (between 2 films after pressing 24 h at 40° and 30 kg/240 cm²) 17 g/4 cm, smooth surface, and good transparency, vs. tacky, 120, smooth, and good, resp., for uncoated PVC film.

IT 107066-98-8

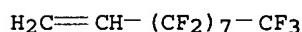
RL: USES (Uses)
(plasticizer migration inhibitors, for PVC)

RN 107066-98-8 HCPLUS

CN Octadecanoic acid, ethenyl ester, polymer with
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heptadecafluoro-1-decene
(9CI) (CA INDEX NAME)

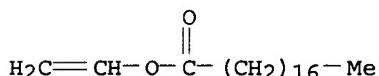
CM 1

CRN 21652-58-4
CMF C10 H3 F17



CM 2

CRN 111-63-7
CMF C20 H38 O2



IC ICM C08K005-53
ICS C07C069-63; C07C069-76; C07C125-06; C07F009-09; C07F009-32;
C07F009-40; C08J007-04; C08K005-02; C08K005-10; C08K005-15;
C08K005-16; C08K005-41; C08K005-52; C08K005-53

CC 37-6 (Plastics Manufacture and Processing)

IT 2250-98-8 63513-12-2 88439-27-4 99955-83-6 100044-20-0

107066-98-8 125930-25-8 125930-26-9 125930-27-0

125953-58-4 126105-14-4 126108-48-3

RL: USES (Uses)
(plasticizer migration inhibitors, for PVC)

L114 ANSWER 37 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:39776 HCPLUS

DOCUMENT NUMBER: 108:39776

TITLE: Coating materials

INVENTOR(S): Shimamura, Kiyoshi; Horikawa, Katsuji;
Teraoka, Tsutomu

PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

 JP 62190264 A2 19870820 JP 1986-31956
 JP 06086581 B4 19941102 JP 1986-31956
 PRIORITY APPLN. INFO.: 1986
 0218
 1986
 0218

AB Nonsticky, water- and oil-repellent, soiling-resistant coating materials are prepared by reacting 100 parts block copolymers of (meth)acrylate esters containing F and no active H and (meth)acrylate esters containing active H with 0.1-200 parts polyisocyanates and 0.01-150 parts compds. containing >1 active H and >1 polymerizable double bond and mixing 0.1-100 parts these adducts with 100 parts radiation-curable compns. such as acrylic acid ester mixts. Thus, 45:140:15:70 (monomer feed ratio) Me acrylate-Me methacrylate-2-hydroxyethyl acrylate-CH₂:CHCO₂C₂H₄(CF₂)₇CF₃ block copolymer was prepared using a polymeric peroxide, modified with Duranate 24A (hexamethylene diisocyanate biuret) and 2-hydroxyethyl acrylate, mixed with a Duranate 24A-NK ester TMM3L (pentaerythritol triacrylate) adduct, tetrahydrofurfuryl acrylate, trimethylolpropane triacrylate and Irgacure 651, coated on a Deraglass A sheet, and irradiated with a Hg lamp to form a coating.

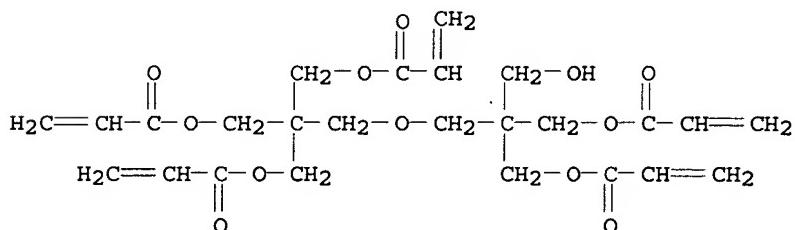
IT 112284-52-3
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, UV-curable, on PMMA)

RN 112284-52-3 HCPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-(2-ethoxyethoxy)ethyl 2-propenoate, ethyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate, 2-[3-hydroxy-2,2-bis[[1-oxo-2-propenyl]oxy]methyl]propoxy]methyl]-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl 2-propenoate, 2-hydroxyethyl 2-propenoate, methyl 2-propenoate, 2-[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[1-oxo-2-propenyl]oxy]methyl]propoxy]methyl]-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol] tetra-2-propenoate and N,N',2-tris(6-isocyanatohexyl)imidodicarbonic diamide (9CI) (CA INDEX NAME)

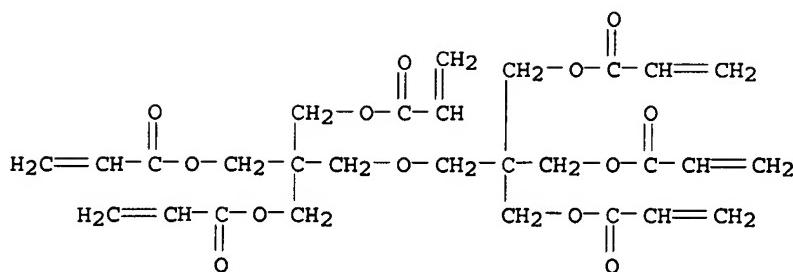
CM 1

CRN 60506-81-2
 CMF C25 H32 O12

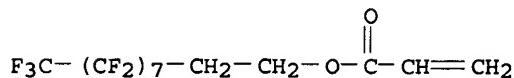


CM 2

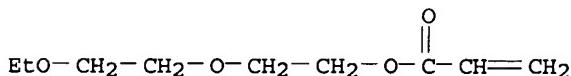
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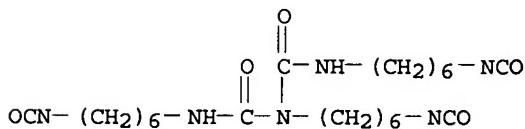
CM 3

CRN 27905-45-9
CMF C13 H7 F17 O2

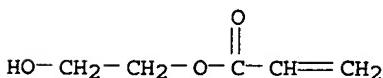
CM 4

CRN 7328-17-8
CMF C9 H16 O4

CM 5

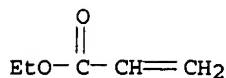
CRN 4035-89-6
CMF C23 H38 N6 O5

CM 6

CRN 818-61-1
CMF C5 H8 O3

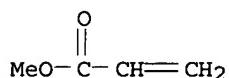
CM 7

CRN 140-88-5
CMF C5 H8 O2



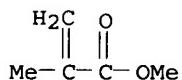
CM 8

CRN 96-33-3
CMF C4 H6 O2



CM 9

CRN 80-62-6
CMF C5 H8 O2

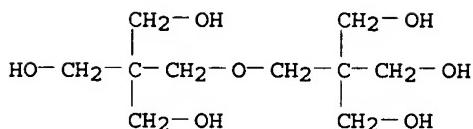


CM 10

CRN 63971-15-3
CMF C22 H30 O11
CCI IDS

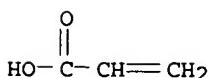
CM 11

CRN 126-58-9
CMF C10 H22 O7



CM 12

CRN 79-10-7
CMF C3 H4 O2



IC ICM C09D003-727
 ICS C08F002-48; C08F299-06; C08G018-67; C09D005-00
 CC 42-10 (Coatings, Inks, and Related Products)
 IT 112250-78-9 112250-79-0 112250-80-3 112250-81-4
 112250-82-5 112250-83-6 112250-84-7 112250-85-8
 112275-31-7 112275-32-8 112275-33-9 112275-34-0
 112275-35-1 112284-52-3 112284-53-4 112284-54-5
 112284-55-6 112315-76-1
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, UV-curable, on PMMA)

L114 ANSWER 38 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1987:103929 HCAPLUS

DOCUMENT NUMBER: 106:103929

TITLE: Deicing coatings not requiring primers, and
 their application to various articles

INVENTOR(S): Enjo, Naonori; Shinjo, Masayoshi; Okazaki,
 Yasuko; Hayashi, Kazunori

PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan

SOURCE: Eur. Pat. Appl., 37 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

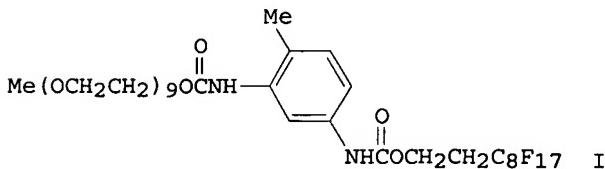
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 200229	A2	19861105	EP 1986-106033	1986 0502
EP 200229	A3	19880720		
EP 200229	B1	19920311		
R: DE, FR, GB				
JP 61254675	A2	19861112	JP 1985-94888	1985 0502
US 4685967	A	19870811	US 1986-856342	1986 0428
PRIORITY APPLN. INFO.:			JP 1985-94888	A 1985 0502

GI



AB Title coatings comprise solvent-based resin compns. and 0.1-75% (based on resin) C6-20 perfluoroalkyl group-containing urethane, phosphate, phosphonic acid derivative, phosphinic acid derivative, polyether, polyester, and/or polyvinyl compds. Acrylic 1000 (solvent-based acrylic resin coating) was mixed with a solution of I 20, Cl3CCF3 40, and acetone 40%, applied to stainless steel, and

dried at room temperature to give a 10- μ coating that showed ice breaking strength 0.7 kg/cm² after freezing for 2 h at -10°, vs. 3.5 for Acrylic 1000 alone.

IT 107066-98-8

RL: USES (Uses)

(coatings containing, for reduced adhesion of ice)

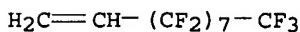
RN 107066-98-8 HCPLUS

CN Octadecanoic acid, ethenyl ester, polymer with
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heptadecafluoro-1-decene
(9CI) (CA INDEX NAME)

CM 1

CRN 21652-58-4

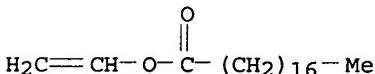
CMF C10 H3 F17



CM 2

CRN 111-63-7

CMF C20 H38 O2



IC ICM C09D005-12

ICS C09K003-18

CC 42-10 (Coatings, Inks, and Related Products)

IT 678-41-1 92661-21-7 107020-94-0 107066-97-7

107066-98-8 107097-76-7

RL: USES (Uses)

(coatings containing, for reduced adhesion of ice)

L114 ANSWER 39 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1986:553710 HCPLUS

DOCUMENT NUMBER: 105:153710

TITLE: Perfluoroalkylvinyl polymer and its use

INVENTOR(S): Fukui, Shoshin; Shinjo, Masayoshi; Aoyama, Hirokazu; Okazaki, Yasuko; Enjo, Naonori; Hayashi, Kazunori

PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan

SOURCE: Eur. Pat. Appl., 29 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 184081	A2	19860611	EP 1985-114823	1985 1122
EP 184081	A3	19861029		
EP 184081	B1	19900321		
R: DE, FR, GB				
US 4673712	A	19870616	US 1985-800387	1985

CN 85109162	A	19861001	CN 1985-109162	1121
				1985
				1122
CN 85109162	B	19880622		
JP 61281112	A2	19861211	JP 1985-263320	
				1985
				1122
JP 01026601	B4	19890524		
EP 304056	A1	19890222	EP 1988-113432	
				1985
				1122
EP 304056	B1	19920219		
R: DE, FR, GB				
JP 01158089	A2	19890621	JP 1988-293430	
				1988
				1118
JP 2551126	B2	19961106		
JP 01158092	A2	19890621	JP 1988-293431	
				1988
				1118
JP 08019192	B4	19960228		
PRIORITY APPLN. INFO.:			JP 1984-247803	A
				1984
				1122
			EP 1985-114823	P
				1985
				1122

AB A perfluoroallylsylvinyl copolymer comprises repeating units of CH₂CHRCH₂ (R = C₅-12 perfluoroalkyl) and CH₂YCH₂ or CMe(CO₂R₁)CH₂ [Y = OR₂, CO₂R₂, O₂CR₂; Z = H, CO₂R₃; R₂, R₃ = C₁-18 alkyl (when Y = OR₂ or O₂CR₂, then Z = H); R₁ = C₁-18 alkyl]. Thus, CF₃CF₂(CF₂CF₂)_nCH:CH₂ (n = 3, 4, 5, 6, 7; 61.94, 27.89, 8.89, 1.2, and 0.08 mol%, resp.) 12.53, Me(CH₂)₁₇OCH:CH₂ 7.47, and tert-butylperoxypropyl carbonate 1.4 g were polymerized at 110° for 6 h, giving a pale yellow grease with glass temperature 23.2°. The product dissolved (1%) in 20:80 acetone-Cl₃F₃C₂. The water and oil repellancy of a polyester fabric dipped into the product-solution was 80 and 70, resp.

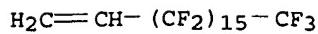
IT 104630-54-8P 104630-55-9P 104630-56-0P
 104630-57-1P 104630-58-2P 104630-59-3P
 104630-60-6P 104630-61-7P
 RL: PREP (Preparation)
 (preparation of, as mold-release agent, water and oil repellent and non-tackifier)

RN 104630-54-8 HCPLUS

CN 1-Octadecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-tritriacontafluoro-, polymer with 1-(ethenylloxy)-2-methylpropane, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafuoro-1-dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafuoro-1-hexadecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuoro-1-tetradecene (9CI) (CA INDEX NAME)

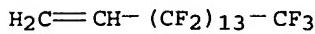
CM 1

CRN 104564-29-6
CMF C18 H3 F33



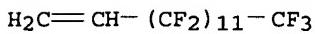
CM 2

CRN 104564-28-5
 CMF C16 H3 F29



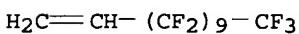
CM 3

CRN 67103-05-3
 CMF C14 H3 F25



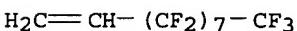
CM 4

CRN 30389-25-4
 CMF C12 H3 F21



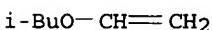
CM 5

CRN 21652-58-4
 CMF C10 H3 F17



CM 6

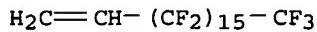
CRN 109-53-5
 CMF C6 H12 O



RN 104630-55-9 HCPLUS
 CN Octadecane, 1-(ethenylxy)-, polymer with
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro-1-
 dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-
 decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,
 15,15,16,16,16-nonacosafuoro-1-hexadecene,
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-
 pentacosafuoro-1-tetradecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,1
 0,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-
 tritriacontafluoro-1-octadecene (9CI) (CA INDEX NAME)

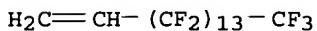
CM 1

CRN 104564-29-6
 CMF C18 H3 F33



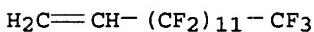
CM 2

CRN 104564-28-5
 CMF C16 H3 F29



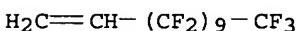
CM 3

CRN 67103-05-3
 CMF C14 H3 F25



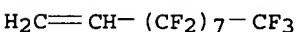
CM 4

CRN 30389-25-4
 CMF C12 H3 F21



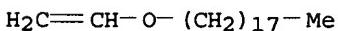
CM 5

CRN 21652-58-4
 CMF C10 H3 F17



CM 6

CRN 930-02-9
 CMF C20 H40 O

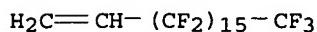


RN 104630-56-0 HCAPLUS
 CN Acetic acid ethenyl ester, polymer with
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosfluoro-1-
 dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-
 decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,
 15,15,16,16,16-nonacosfluoro-1-hexadecene,
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-
 pentacosfluoro-1-tetradecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,1

0,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-
tritriacontafluoro-1-octadecene (9CI) (CA INDEX NAME)

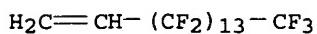
CM 1

CRN 104564-29-6
CMF C18 H3 F33



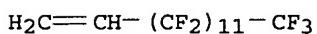
CM 2

CRN 104564-28-5
CMF C16 H3 F29



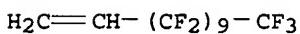
CM 3

CRN 67103-05-3
CMF C14 H3 F25



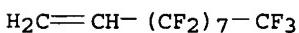
CM 4

CRN 30389-25-4
CMF C12 H3 F21



CM 5

CRN 21652-58-4
CMF C10 H3 F17



CM 6

CRN 108-05-4
CMF C4 H6 O2

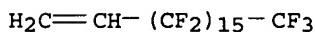


RN 104630-57-1 HCPLUS
CN Octanoic acid, ethenyl ester, polymer with
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosfluoro-1-
dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-

decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,
 15,15,16,16,16-nonacosfluoro-1-hexadecene,
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-
 pentacosfluoro-1-tetradecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,1
 0,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-
 tritriacontafluoro-1-octadecene (9CI) (CA INDEX NAME)

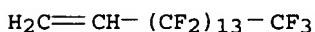
CM 1

CRN 104564-29-6
 CMF C18 H3 F33



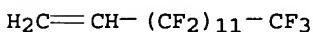
CM 2

CRN 104564-28-5
 CMF C16 H3 F29



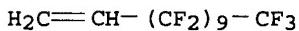
CM 3

CRN 67103-05-3
 CMF C14 H3 F25



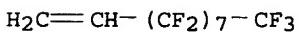
CM 4

CRN 30389-25-4
 CMF C12 H3 F21



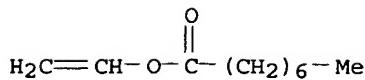
CM 5

CRN 21652-58-4
 CMF C10 H3 F17



CM 6

CRN 818-44-0
 CMF C10 H18 O2

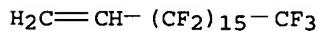


RN 104630-58-2 HCPLUS

CN Octadecanoic acid, ethenyl ester, polymer with
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro-1-dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafluoro-1-hexadecene,
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafluoro-1-tetradecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-tritriacontafluoro-1-octadecene (9CI) (CA INDEX NAME)

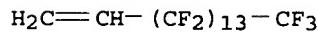
CM 1

CRN 104564-29-6
 CMF C18 H3 F33



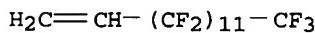
CM 2

CRN 104564-28-5
 CMF C16 H3 F29



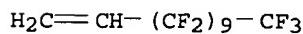
CM 3

CRN 67103-05-3
 CMF C14 H3 F25



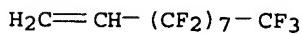
CM 4

CRN 30389-25-4
 CMF C12 H3 F21

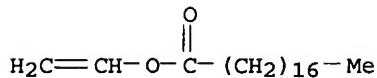


CM 5

CRN 21652-58-4
 CMF C10 H3 F17

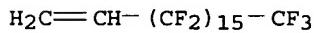


CM 6

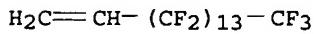
CRN 111-63-7
CMF C20 H38 O2

RN 104630-59-3 HCAPLUS
 CN 2-Butenedioic acid (2Z)-, dibutyl ester, polymer with
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosfluoro-1-
 dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-
 decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,
 15,15,16,16,16-nonacosfluoro-1-hexadecene,
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-
 pentacosfluoro-1-tetradecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,1
 0,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-
 tritriacontafluoro-1-octadecene (9CI) (CA INDEX NAME)

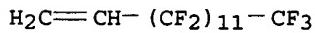
CM 1

CRN 104564-29-6
CMF C18 H3 F33

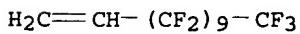
CM 2

CRN 104564-28-5
CMF C16 H3 F29

CM 3

CRN 67103-05-3
CMF C14 H3 F25

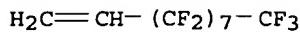
CM 4

CRN 30389-25-4
CMF C12 H3 F21

CM 5

CRN 21652-58-4

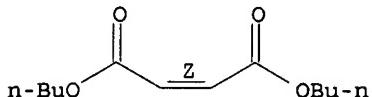
CMF C10 H3 F17



CM 6

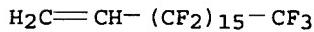
CRN 105-76-0
CMF C12 H20 O4

Double bond geometry as shown.

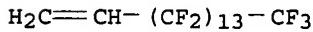


RN 104630-60-6 HCAPLUS
 CN 2-Butenedioic acid (2Z)-, dinonyl ester, polymer with
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosfluoro-1-
 dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10,10-heptadecafluoro-1-
 decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,
 15,15,16,16,16-nonacosfluoro-1-hexadecene,
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-
 pentacosfluoro-1-tetradecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,1
 0,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-
 tritriacontafluoro-1-octadecene (9CI) (CA INDEX NAME)

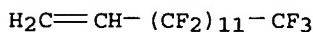
CM 1

CRN 104564-29-6
CMF C18 H3 F33

CM 2

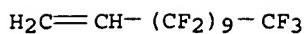
CRN 104564-28-5
CMF C16 H3 F29

CM 3

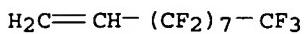
CRN 67103-05-3
CMF C14 H3 F25

CM 4

CRN 30389-25-4
CMF C12 H3 F21



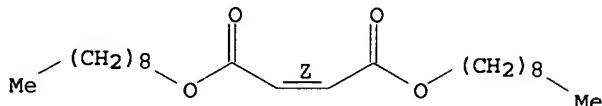
CM 5

CRN 21652-58-4
CMF C10 H3 F17

CM 6

CRN 2787-64-6
CMF C22 H40 O4

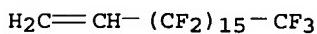
Double bond geometry as shown.



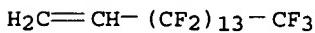
RN 104630-61-7 HCPLUS

CN 2-Propenoic acid, 2-methyl-, heptadecyl ester, polymer with
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosfluoro-1-
dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-
decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,
15,15,16,16,16-nonacosfluoro-1-hexadecene,
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-
pentacosfluoro-1-tetradecene and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,1
0,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-
tritriacontafluoro-1-octadecene (9CI) (CA INDEX NAME)

CM 1

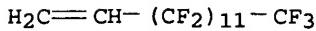
CRN 104564-29-6
CMF C18 H3 F33

CM 2

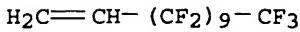
CRN 104564-28-5
CMF C16 H3 F29

CM 3

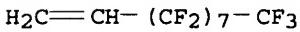
CRN 67103-05-3
CMF C14 H3 F25



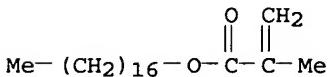
CM 4

CRN 30389-25-4
CMF C12 H3 F21

CM 5

CRN 21652-58-4
CMF C10 H3 F17

CM 6

CRN 6140-75-6
CMF C21 H40 O2

IC ICM C08F214-18
 ICI C08F214-18, C08F216-14; C08F214-18, C08F218-04; C08F214-18,
 C08F218-14; C08F214-18, C08F220-12
 CC 35-4 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 40, 42
 ST perfluoroalkylvinyl polymer water repellent;
 oil repellent perfluoroalkylvinyl polymer
 IT Polyester fibers, uses and miscellaneous
 RL: USES (Uses)
 (fabrics, water and oil-repellents
 for, perfluoroalkylvinyl polymers as)
 IT Fluoropolymers
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (manufacture of, as water- and oil-repellents,
 mold-release agents and nontackifiers)
 IT Waterproof materials and Water-repellent
 materials
 (perfluoroalkylvinyl polymers for)
 IT Coating materials
 (oil- and water-repellent,
 perfluoroalkylvinyl copolymers as additives for)
 IT 104630-54-8P 104630-55-9P 104630-56-0P
 104630-57-1P 104630-58-2P 104630-59-3P
 104630-60-6P 104630-61-7P
 RL: PREP (Preparation)
 (preparation of, as mold-release agent, water and oil
 repellent and non-tackifier)

DOCUMENT NUMBER: 85:110229
 TITLE: Fluorine and sulfur-containing compositions
 INVENTOR(S): Hager, Robert B.; Toukan, Sameeh S.
 PATENT ASSIGNEE(S): Pennwalt Corp., USA
 SOURCE: U.S., 10 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 5
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3948887	A	19760406	US 1974-459258	1974 0408
GB 1437255	A	19760526	GB 1973-38075	1973 0810
FR 2199536	A1	19740412	FR 1973-30750	1973 0824
JP 49059090	A2	19740607	JP 1973-94510	1973 0824
IT 990322	A	19750620	IT 1973-52171	1973 0824
FR 2207934	A1	19740621	FR 1974-1251	1974 0115
FR 2207934	B1	19790323		
FR 2207948	A1	19740621	FR 1974-1252	1974 0115
FR 2207948	B1	19780324		
FR 2207927	A1	19740621	FR 1974-1253	1974 0115
US 3883596	A	19750513	US 1974-459136	1974 0408
US 3899484	A	19750812	US 1974-459144	1974 0408
US 4113748	A	19780912	US 1974-459132	1974 0408
PRIORITY APPLN. INFO.:			US 1972-283886	A3 1972 0825

AB The reaction of bis[(fluoroalkylthio)methyl]methanols (adhesion promoters), obtained from perfluoroalkanethiol and epoxide, with 2,4-toluene diisocyanate gave carbamates useful as oil and H₂O repellent for leather, textiles and paper. Thus, 0.8% bis[perfluoro(7-methyloctyl)ethylthiomethyl]methyl phenyl 4-methyl-1,3-benzenedicarbamate solution in CH₃CCl₃ was sprayed onto sueded pigskin to give a specimen with 100+ oil and 100-H₂O initial repellency rating (AATCC Standard Test method 52-1952).

IT 53122-44-4
 RL: USES (Uses)

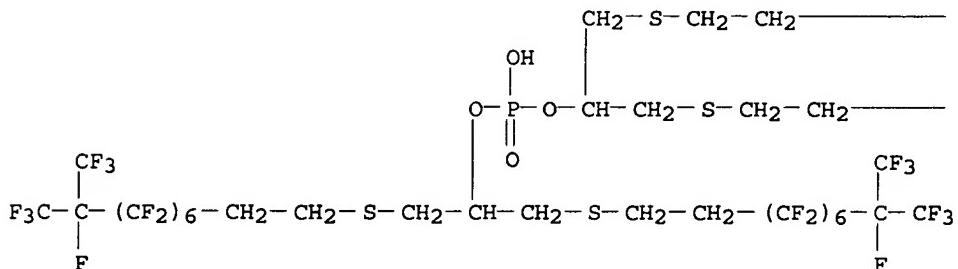
(oil and water repellent, for paper)

RN 53122-44-4 HCPLUS

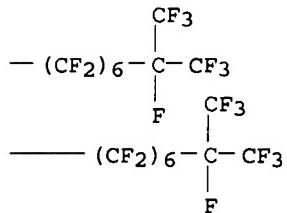
CN 2-Propanol, 1,3-bis[[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10-

hexadecafluoro-9-(trifluoromethyl)decyl]thio] -, hydrogen phosphate
(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



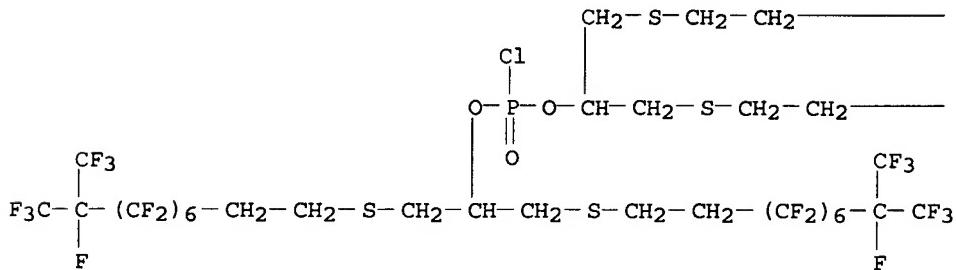
IT 59529-52-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

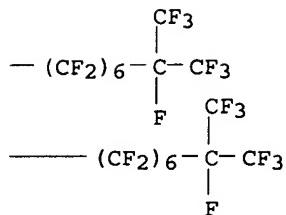
RN 59529-52-1 HCPLUS

CN Phosphorochloridic acid, bis[2-[[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,10-hexadecafluoro-9-(trifluoromethyl)decyl]thio]-1-[[[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,10-hexadecafluoro-9-(trifluoromethyl)decyl]thio]methyl]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

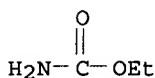


IT 51-79-6

RL: RCT (Reactant); RACT (Reactant or reagent)
 (transesterification of, with bis[(fluoroalkylthio)methyl]methanols)

RN 51-79-6 HCPLUS

CN Carbamic acid, ethyl ester (8CI, 9CI) (CA INDEX NAME)



IC C07D

INCL 260239000E

CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 39, 41

ST fluoroalkylthiomethyl carbamate water repellent
 ; oil repellent fluoroalkylthiomethyl
 carbamate; leather oil water repellent

IT Oils

RL: USES (Uses)
 (-repellents, bis(fluoroalkylthiomethyl)methyl carbamates, for leather and textiles)

IT Waterproof materials and Water-repellent
 materials
 (bis(fluoroalkylthiomethyl)methyl carbamates, for leather and
 textiles)

IT Leather

Paper
 Textiles
 (oil and water repellents for,
 bis(fluoroalkylthiomethyl)methyl carbamates as)

IT Coating materials
 (poly(vinylidene fluoride), containing
 (fluoroalkylthiomethyl)oxirane, for improved adhesion and flow
 properties)

IT 41945-92-0

RL: USES (Uses)
 (oil and water repellent manufacture from)

IT 59544-10-4

RL: USES (Uses)
 (oil and water repellent, for cotton)

IT 75-55-8D, Aziridine, 2-methyl-, reaction products with
 bis(nonafluoroundecylthiomethyl)methanol, toluene diisocyanate and
 trimethylolpropane 100-51-6D, Benzenemethanol, reaction products
 with bis(nonafluoroundecylthiomethyl)methanol, methylaziridine,
 toluene diisocyanate and trimethylolpropane 109-89-7D,
 Ethanamine, N-ethyl-, reaction products with
 bis(nonafluoroundecylthiomethyl)methanol, methylaziridine, toluene
 diisocyanate and trimethylolpropane 112-70-9D, 1-Tridecanol,
 reaction products with bis(fluoroalkylthiomethyl)methanol,
 ethylenimine, TDI, and trimethylolpropane 151-56-4D, Aziridine,

reaction products with bis(nonafluoroundecylthiomethyl)methanol, heptacosanol, toluene diisocyanate and trimethylolpropane
 3710-84-7D, Ethanamine, N-ethyl-N-hydroxy-, reaction products with bis(nonafluoroundecylthiomethyl)methanol, methylaziridine, toluene diisocyanate and trimethylolpropane 52978-10-6D, Ethanol, 2-[[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,10-hexadecafluoro-9-(trifluoromethyl)decyl]thio]-, reaction products with allyl alc., aziridine, and TDI

RL: USES (Uses)

(oil and water repellent, for cotton textiles)

IT 77-99-6D, 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, reaction products with bis(perfluoroalkylthiomethyl) methanol and toluene diisocyanate 107-18-6D, 2-Propen-1-ol, reaction products with aziridine, bis[(fluoroalkylthio)methyl]methanols, and toluene diisocyanate 584-84-9D, Benzene, 2,4-diisocyanato-1-methyl-, reaction products with bis(perfluoroalkanethiomethyl)methanol and trimethylolpropane

RL: USES (Uses)

(oil and water repellent, for leather)

IT 52984-99-3
 RL: USES (Uses)

(oil and water repellent, for leather and textiles)

IT 53122-44-4
 RL: USES (Uses)

(oil and water repellent, for paper)

IT 59566-63-1
 RL: USES (Uses)

(oil and water repellent, for textiles and paper)

IT 41946-02-5
 RL: USES (Uses)

(oil and water repellents, for textiles)

IT 59537-50-7
 RL: USES (Uses)

(oil repellent, for cotton-polyester fabrics)

IT 41946-08-1P 41946-09-2P 52978-09-3P 52985-02-1P

59529-52-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

IT 51-79-6

RL: RCT (Reactant); RACT (Reactant or reagent)
 (transesterification of, with bis[(fluoroalkylthio)methyl]methanols)

L114 ANSWER 41 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1975:47762 HCPLUS

DOCUMENT NUMBER: 82:47762

TITLE: Thromboresistant biomedical polymers with fluoroalkyl side chains

INVENTOR(S): Schwarcz, Andor

SOURCE: U.S., 7 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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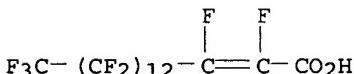
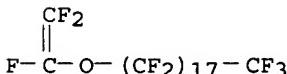
US 3839743	A	19741008	US 1973-406547	1973

PRIORITY APPLN. INFO.:

US 1972-246327

1015
A2
1972
0421

AB The thromboresistant biomedical articles are composed, at least on their surface, of an organic polymer having side chains $CnF2n+1CmH2m-$, in which n is 1-28 and the sum of n and m is 2-28. The number of fluoroalkyl side chains relative to the number of main chain atoms in 1 recurring unit ranges from 1:2 to 1:10. The polymeric material has another side group chemical bonded to the main chain; the side group is H, halogen, aryl, lower alkyl, or simple anionic groups. Thus, 90 g (0.1 moles) of 1,1-dihydrotritriacontafluorohexadecyl acrylate and 1.14 g (0.01 moles) of 1-hexanoic acid are copolymerd., by using 0.5% azobisisobutyronitrile as the initiator and toluene as the solvent medium. The reaction is carried out at 75-80° for 16 hr to give the copolymer. The intrinsic viscosity measured in hexafluorodimethylbenzene is 0.2. A glass tube is then treated with a 5% trichlorotrifluoroethylene solution of the copolymer by filling the tube, inverting it, and allowing the excess liquid to drain out. After evaporation of the solvent, the coated test tube is sterilized. Five ml of freshly drawn whole blood from the lower vena cava of a rabbit is added and the test tube is periodically tipped to observe clot formation. No evidence of clot formation is observed for several hr. A control test tube, not coated with a layer of the copolymer, is tested in an identical manner and clotting occurs in 7 min.

IT 54191-32-1RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with silicone rubber)**RN** 54191-32-1 HCPLUS**CN** 2-Hexadecenoic acid, 2,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosfluoro-, polymer with 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18-heptatriacontafluoro-18-[trifluoroethoxy]octadecane (9CI) (CA INDEX NAME)**CM** 1CRN 54191-31-0
CMF C16 H F29 O2**CM** 2CRN 54191-30-9
CMF C20 F40 O

IC A61F; A61M
INCL 003001000
CC 63-7 (Pharmaceuticals)
IT 54191-32-1
 RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction with silicone rubber)

L114 ANSWER 42 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1974:553076 HCPLUS
 DOCUMENT NUMBER: 81:153076
 TITLE: Sulfur-containing fluorocarbons
 INVENTOR(S): Hager, Robert B.; Toukan, Sameeh S.; Walter,
 Gerald Joseph
 PATENT ASSIGNEE(S): Pennwalt Corp.
 SOURCE: Ger. Offen., 31 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 5
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2342888	A1	19740307	DE 1973-2342888	1973 0824
GB 1437255	A	19760526	GB 1973-38075	1973 0810
FR 2199536	A1	19740412	FR 1973-30750	1973 0824
JP 49059090	A2	19740607	JP 1973-94510	1973 0824
IT 990322	A	19750620	IT 1973-52171	1973 0824
FR 2207934	A1	19740621	FR 1974-1251	1974 0115
FR 2207934	B1	19790323		
FR 2207948	A1	19740621	FR 1974-1252	1974 0115
FR 2207948	B1	19780324		
FR 2207927	A1	19740621	FR 1974-1253	1974 0115
US 3883596	A	19750513	US 1974-459136	1974 0408
US 3899484	A	19750812	US 1974-459144	1974 0408
US 4113748	A	19780912	US 1974-459132	1974 0408
PRIORITY APPLN. INFO.:			US 1972-283886	A 1972 0825

AB Bis[[2-[7-(trifluoromethyl)perfluoroctyl]ethylthio]methyl]methane, 1 (I) [40099-98-7], 3-[2-[7-(trifluoromethyl)perfluoroctyl]ethylthio]-1,2-propanediol [41945-92-0], and 2-[2-[7-(trifluoromethyl)perfluoroctyl]ethylthio]ethanol [52978-10-6] were prepared and used in the preparation of urethane, alkyd, acrylate, and other resins useful as oil- and water-repellent coatings on leather, textiles, etc. Thus, 2-[7-(trifluoromethyl)perfluoroctyl]ethanethiol

[28505-86-4] in EtOH was treated slowly with NaOH and epichlorohydrin [106-89-8] to prepare I which (0.0315 mole) was added to the reaction product of 0.094 mole 2,4-tolylene diisocyanate [584-84-9] and 0.0315 mole trimethylolpropane [77-99-6] to prepare a product, containing isocyanate groups, useful for water- and oil-repellent finishing of leather or for further reactions.

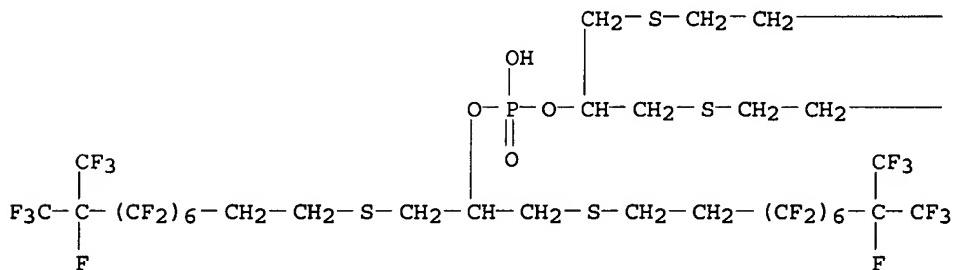
IT 53122-44-4P

RL: PREP (Preparation)
(preparation of)

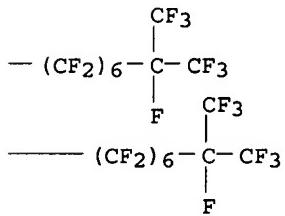
RN 53122-44-4 HCPLUS

CN 2-Propanol, 1,3-bis[[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,10-hexadecafluoro-9-(trifluoromethyl)decyl]thio]-, hydrogen phosphate (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT 53122-45-5

RL: USES (Uses)
(solvent-resistant coatings, for paper)

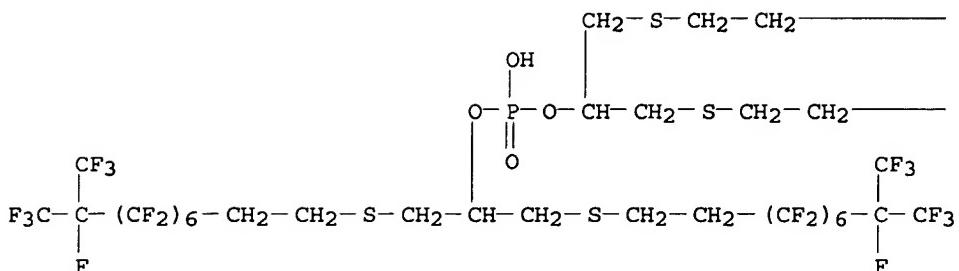
RN 53122-45-5 HCPLUS

CN 2-Propanol, 1,3-bis[[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,10-hexadecafluoro-9-(trifluoromethyl)decyl]thio]-, hydrogen phosphate, compd. with 2-aminoethanol (1:1) (9CI) (CA INDEX NAME)

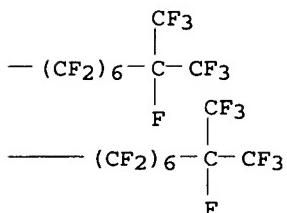
CM 1

CRN 53122-44-4
CMF C50 H27 F76 O4 P S4

PAGE 1-A



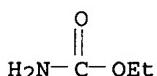
PAGE 1-B



CM 2

CRN 141-43-5
CMF C2 H7 N O $\text{H}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{OH}$

IT 51-79-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (transesterification of, by bis[(perfluoroisononyl)ethylthiomethyl] methanol)
 RN 51-79-6 HCPLUS
 CN Carbamic acid, ethyl ester (8CI, 9CI) (CA INDEX NAME)



IC C07C; C07F; C09D; D06M
 CC 35-3 (Synthetic High Polymers)
 Section cross-reference(s): 23, 41
 ST fluoroalkylthioalkanol; thioalkanol fluoroalkyl; alc
 fluoroalkylthioalkyl; oil repellent finish;
 water repellent finish; urethane
 fluoroalkylthioalkanol polymer; alkyd fluoroalkylthioalkanol
 polymer; acrylate fluoroalkylthioalkyl polymer
 IT Coating materials
 (fluorine-containing acrylate and urethane polymers)
 IT Alkyd resins
 Urethane polymers, uses and miscellaneous
 RL: USES (Uses)

(fluorine-containing, oil- and water-repellent finishes, for textiles)

IT Waterproofing
(of textiles and leather, fluorine-containing resins for)

IT Leather
Textiles
(oil- and water-repellent, fluorine-containing resins for)

IT 1,3-Propanediol, 1,3-bis[[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,10-hexadecafluoro-9-(trifluoromethyl)decyl]thio]-, reaction products with carboxylic acids and isocyanates
RL: USES (Uses)
(oil- and water-repellent finishes)

IT 2,5-Furandione, polymer with ethene, esters with bis[(perfluoroisononyl)ethylthiomethyl]methanol
Ethene, polymer with 2,5-furandione, esters with bis[(perfluoroisononyl)ethylthiomethyl]methanol
RL: USES (Uses)
(oil-repellent finishes, for textiles)

IT 52984-96-0 52984-97-1 53041-38-6
RL: USES (Uses)
(fluoroalkylthioalkanol-modified, oil- and water-repellent finishes)

IT 77-99-6D, 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, reaction products with tolylene diisocyanate and bis[(perfluoroisononyl)ethylthiomethyl]methanol 584-84-9D,
Benzene, 2,4-diisocyanato-1-methyl-, reaction products with trimethylolpropane and bis[(perfluoroisononyl)ethylthiomethyl]methanol 53122-39-7 53122-40-0 53122-41-1 53122-42-2
RL: USES (Uses)
(oil- and water-repellent finishes)

IT 41946-02-5 52985-00-9 52985-01-0
RL: USES (Uses)
(oil- and water-repellent finishes, for textiles)

IT 52984-98-2 52984-99-3 52985-02-1
RL: USES (Uses)
(oil- and water-resistant finishes, for textiles)

IT 41946-08-1P 41946-09-2P 52978-09-3P 52978-10-6P
52978-11-7P 53122-43-3P 53122-44-4P
RL: PREP (Preparation)
(preparation of)

IT 53122-45-5
RL: USES (Uses)
(solvent-resistant coatings, for paper)

IT 51-79-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(transesterification of, by bis[(perfluoroisononyl)ethylthiomethyl] methanol)

L114 ANSWER 43 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1972:420366 HCPLUS
DOCUMENT NUMBER: 77:20366
TITLE: Textile-treating polymers of perfluoro esters of fumaric acid and other ethylenically unsaturated polybasic acids
INVENTOR(S): Kleiner, Eduard K.; Knell, Martin
PATENT ASSIGNEE(S): Ciba-Geigy A.-G.
SOURCE: Ger. Offen., 49 pp. Division of Ger. Offen.
1,918,079 (CA 72;22557a).
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1966209	A1	19720302	DE 1969-1966209	
				1969
				1129
PRIORITY APPLN. INFO.:			US 1971-199793	A
				1971
				1117

AB Oil- and water-repellants are prepared by polymerization of fluoroalkyl esters of unsatd. polybasic acids. Thus, stirring 57.5 parts fumaroyl chloride and 300 parts CF₃(CF₂)₆CH₂OH 141 hr at 80-5.deg. gives 169.2 parts bis(1,1-dihydropoperfluoroctyl) fumarate (I) [24120-18-1]. Heating 10 parts I and 0.2 part azodicyclohexanecarbonitrile 24 hr at 80.deg. gives I polymer (II) [34978-45-5], glass temperature -15.deg., m.p. 21.deg.. Cotton fabric containing 2% II has oil repellance (3M oil test) 120, H₂O repellance (AATCC H₂O spray test) 70.

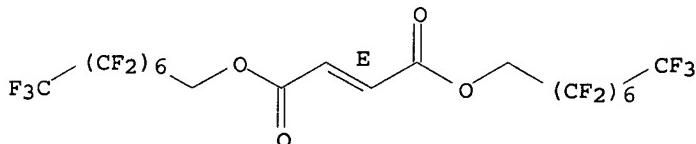
IT 36223-26-4 36223-37-7 36463-54-4
36463-55-5 36463-56-6
RL: USES (Uses)
(oil- and water-repellents for textiles)

RN 36223-26-4 HCPLUS
CN 2-Butenedioic acid (2E)-, bis(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoroctyl) ester, polymer with ethenyl dodecanoate (9CI) (CA INDEX NAME)

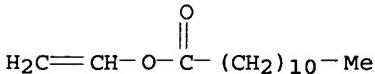
CM 1

CRN 24120-18-1
CMF C20 H6 F30 O4

Double bond geometry as shown.



CM 2

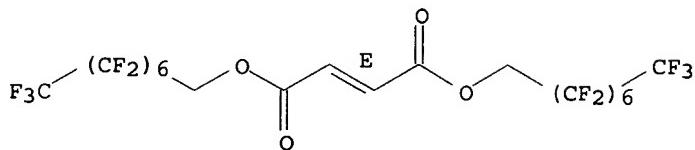
CRN 2146-71-6
CMF C14 H26 O2

RN 36223-37-7 HCPLUS
CN 2-Butenedioic acid (2E)-, bis(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoroctyl) ester, polymer with 1-octadecene (9CI) (CA INDEX NAME)

CM 1

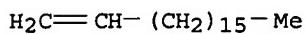
CRN 24120-18-1
CMF C20 H6 F30 O4

Double bond geometry as shown.



CM 2

CRN 112-88-9
CMF C18 H36



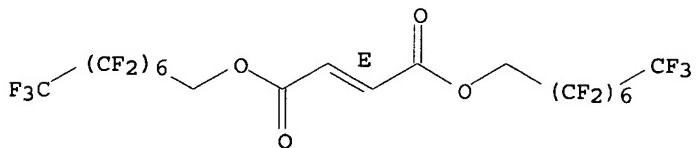
RN 36463-54-4 HCPLUS

CN 2-Butenedioic acid (2E)-, bis(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl) ester, polymer with 1-(ethenyloxy)dodecane (9CI) (CA INDEX NAME)

CM 1

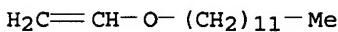
CRN 24120-18-1
CMF C20 H6 F30 O4

Double bond geometry as shown.



CM 2

CRN 765-14-0
CMF C14 H28 O



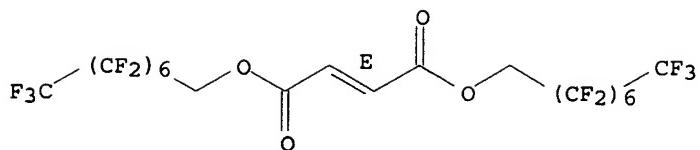
RN 36463-55-5 HCPLUS

CN 2-Butenedioic acid (2E)-, bis(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl) ester, polymer with 1-(ethenyloxy)hexadecane (9CI) (CA INDEX NAME)

CM 1

CRN 24120-18-1
CMF C20 H6 F30 O4

Double bond geometry as shown.



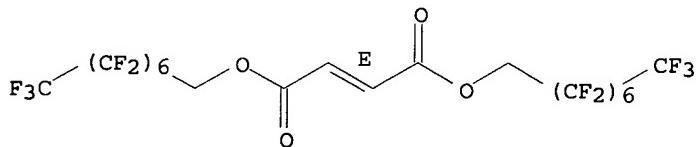
CM 2

CRN 822-28-6
CMF C18 H36 O $H_2C=CH-O-(CH_2)_{15}-Me$ RN 36463-56-6 HCPLUS
CN 2-Butenedioic acid (2E)-, bis(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoroctyl) ester, polymer with 1-(ethenyloxy)octadecane (9CI) (CA INDEX NAME)

CM 1

CRN 24120-18-1
CMF C20 H6 F30 O4

Double bond geometry as shown.



CM 2

CRN 930-02-9
CMF C20 H40 O $H_2C=CH-O-(CH_2)_{17}-Me$

IC	C08F
CC	35-3 (Synthetic High Polymers)
IT	9069-74-3 9069-75-4 9069-76-5 9069-77-6 26338-00-1 26338-01-2 26338-02-3 26338-03-4 26338-04-5 26470-18-8 36201-52-2 36201-53-3 36201-54-4 36201-55-5 36201-56-6 36201-57-7 36223-25-3 36223-26-4 36223-27-5 36223-28-6 36223-29-7 36223-30-0 36223-31-1 36223-32-2 36223-33-3 36223-34-4 36223-35-5 36223-36-6 36223-37-7 36223-38-8 36223-39-9 36223-40-2 36223-41-3 36223-42-4 36223-43-5 36223-44-6 36223-45-7 36223-46-8 36223-47-9 36223-48-0 36223-49-1 36427-09-5 36427-18-6 36427-19-7 36427-20-0 36427-21-1 36427-22-2 36427-23-3 36427-24-4 36427-25-5 36427-26-6 36463-42-0 36463-43-1 36463-44-2 36463-45-3 36463-46-4 36463-47-5 36463-48-6 36463-49-7 36463-50-0 36463-51-1 36463-52-2 36463-53-3 36463-54-4 36463-55-5 36463-56-6 36463-57-7 36463-58-8 36463-59-9

36463-60-2 36463-61-3 36463-62-4 36463-63-5 36463-64-6
 36463-65-7 36463-66-8 36509-77-0
 RL: USES (Uses)
 (oil- and water-repellents for textiles)

L114 ANSWER 44 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1972:114778 HCPLUS
 DOCUMENT NUMBER: 76:114778
 TITLE: Polymerizable perfluoroalkylmonocarboxylic acid esters oil repellents for textiles
 PATENT ASSIGNEE(S): CIBA Ltd.
 SOURCE: Fr., 41 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2054241		19710521	FR	
PRIORITY APPLN. INFO.:			CH	1969 0707

AB The perfluoroalkyl esters were prepared by treating a C4-24 perfluoroalkyl acid with an acyclic aliphatic epoxide. At room temperature, glycidyl methacrylate in perfluorocaprylic acid was treated with NaOAc in EtOAc, and hydroquinone monomethyl ether stabilizer was added to give 2-hydroxy-3-(perfluoroheptylcarbonyloxy)propyl methacrylate [34569-65-8] or 3-hydroxy-2-(perfluoroheptylcarbonyloxy)propyl methacrylate [34578-21-7], which was polymerized in EtOAc containing K2S2O8 catalyst. The polymer solution was used to impregnate cotton, polyamide, and polyester fabrics to leave them oil repellent. Nine other esters were similarly prepared

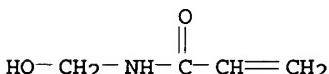
IT 9071-80-1
 RL: USES (Uses)
 (oilproofing agents, for synthetic fibers and textiles)

RN 9071-80-1 HCPLUS

CN Octadecanoic acid, 9,10-dihydroxy-, ethenyl ester, mono(pentadecafluoroctanoate), polymer with N-(hydroxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 924-42-5
 CMF C4 H7 N O2



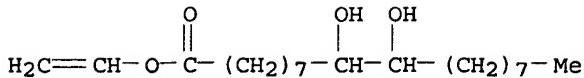
CM 2

CRN 50853-39-9
 CMF C28 H37 F15 O5
 CCI IDS

CM 3

CRN 3195-21-9

CMF C20 H38 O4



CM 4

CRN 335-67-1
CMF C8 H F15 O2F₃C-(CF₂)₆-CO₂H

IC C07C; C08F; C06M
 CC 39 (Textiles)
 IT 9070-70-6 9070-71-7 9070-94-4 9071-19-6 9071-75-4
 9071-77-6 9071-80-1
 RL: USES (Uses)
 (oilproofing agents, for synthetic fibers and textiles)

L114 ANSWER 45 OF 46 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1971:23612 HCPLUS
 DOCUMENT NUMBER: 74:23612
 TITLE: Fluorinated organic compounds and their polymers
 INVENTOR(S): Hauptschein, Murray; Hager, Robert B.; Allen, Thomas Clark
 PATENT ASSIGNEE(S): Pennsalt Chemicals Corp.
 SOURCE: Brit., 15 pp.
 CODEN: BRXXAA
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
-----	-----	-----	-----	-----
GB 1211034		19701104	GB	
US 3544663		19700000	US	
PRIORITY APPLN. INFO.:			US	
				1967
				0130

AB Fluorinated organic compds. of the formula RCH₂CH₂SC(O)C(R₁):CH₂ (I), where R is C₅-13 perfluoroalkyl and R₁ is H or Me, and their polymers were prepared and used in textile finishing compns. Thus, methacryloyl chloride was refluxed with a solution of 2-(perfluoro-7-methyloctyl)ethyl mercaptan, Et₃N, and hydroquinone, and the salt product was separated, dried, and treated with N,N'-diphenyl-p-phenylenediamine to give 2-(perfluoro-7-methyloctyl)ethyl thiomethacrylate (II). II was polymerized in a solution of Me₂CO, methylolacrylamide, deoxygenated H₂O, trimethylhexadecylammonium bromide (Acetoquat CTAB) and azodiisobutyramidine dihydrochloride. This fluorinated latex was mixed with a nonfluorinated latex such as poly(n-decyl methacrylate), a creaseproofing resin (Permafresh 183), aqueous Zn(NO₃)₂, and an extender (Norane F) to give a bath which was used to pad cotton textiles. The padded textiles had good water and oil repellency and retained this repellency after numerous laundering and drying cycles.

IT 30660-63-0

RL: USES (Uses)

(in waterproofing of textiles)

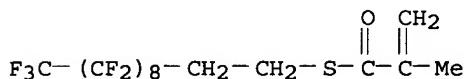
RN 30660-63-0 HCAPLUS

CN Acrylic acid, 2-methylthio-, S-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoroundecyl) ester, polymer with hexadecyl vinyl ether (8CI) (CA INDEX NAME)

CM 1

CRN 45310-42-7

CMF C15 H9 F19 O S



CM 2

CRN 822-28-6

CMF C18 H36 O

 $\text{H}_2\text{C} = \text{CH} - \text{O} - (\text{CH}_2)_{15} - \text{Me}$

IC C07C

CC 39 (Textiles)

IT 26797-74-0 29320-53-4 30660-58-3 30660-59-4 30660-60-7

30660-61-8 30660-62-9 30660-63-0 30661-93-9

RL: USES (Uses)

(in waterproofing of textiles)

L114 ANSWER 46 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1969:514118 HCAPLUS

DOCUMENT NUMBER: 71:114118

TITLE: Emulsifiers for silicones

PATENT ASSIGNEE(S): Henkel und Cie. G.m.b.H.

SOURCE: Fr., 6 pp.

CODEN: FRXXAK

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
-----	-----	-----	-----	-----
FR 1565387		19690502	FR	
DE 1694381			DE	
DE 1694382			DE	
PRIORITY APPLN. INFO.:			DE	
				1966
				1214
			DE	
				1967
				0114

AB HCHO is condensed with dicyandiamide, stearylamine, and HCO2H to prepare an emulsifier which is especially useful for preparing aqueous dispersions of poly(methylsiloxane), poly(dimethylsiloxane), and similar silicones because the emulsifier hardens and loses its

emulsifying activity when the silicone is heated in the presence of a conventional hardening agent [e.g., Zn(NO₃)₂] for the silicone. Similar hardenable emulsifiers are prepared by the condensation of HCHO or paraformaldehyde with melamine and hydroxystearic acid, with dicyandiamide and stearylbiguanide-HCl, with stearylguanidine-HCl and HCO₂H, with dodecylbiguanide, with guanidine-HCl and perfluorononyl-guanidine formate, with cocoamine, HCO₂H, and melamine, and with similar compds. The emulsifiers are especially useful for the application of water-repellent and, in some cases, crease-resistant (i.e., containing dimethylolethyleneurea or dimethylolpropyleneurea) silicone coatings to cotton fabrics because the emulsifiers are inactivated during curing and do not adversely affect the adhesion and wash resistance of the coating. Thus, a mixture of 75 g. 30% HCHO solution, 42 g. dicyandiamide, 6.75 g. stearylamine, 12.5 ml. 2N HCl, and 30 g. iso-PrOH was agitated 5 hrs. at 80°, treated during 30 min. with 27.1 g. 85% HCO₂H, agitated 1 hr. at 80°, and cooled to give a white paste which (1 part) was dissolved in 74 parts boiling water. The solution was cooled, adjusted to pH 4 with AcOH, homogenized with 15 parts poly(methylsiloxane) (mol. weight 2500) and 7.5 parts iso-PrOH. This stable emulsion (80 ml.) was diluted with 100 ml. water (pH 4), mixed with 720 ml. water (pH 4) containing 0.8 g. SnCl₂.2H₂O, and applied to cotton poplin fabric (80% wet pickup). After being dried at 100° and cured for 5 min. at 150°, a water-repellent coating having good resistance to washing and scrubbing was obtained.

IT 26283-97-6

RL: USES (Uses)

(reaction products with acids, as hardenable emulsifying agents for siloxanes)

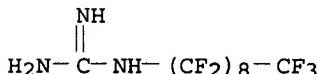
RN 26283-97-6 HCPLUS

CN Formic acid, compd. with (nonadecafluorononyl)guanidine, polymer with formaldehyde and guanidine (9CI) (CA INDEX NAME)

CM 1

CRN 45305-54-2

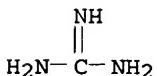
CMF C10 H4 F19 N3



CM 2

CRN 113-00-8

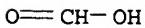
CMF C H5 N3



CM 3

CRN 64-18-6

CMF C H2 O2



CM 4

CRN 50-00-0
CMF C H₂ OH₂C=O

IC C08G; D06M
 CC 39 (Textiles)
 IT 26283-87-4 26283-93-2 26283-94-3 26283-95-4 26283-96-5
 26283-97-6 26678-51-3
 RL: USES (Uses)
 (reaction products with acids, as hardenable emulsifying agents
 for siloxanes)

=> => d que stat 1117
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 112-92-5/BI OR 112-96-9/BI OR 1344-28-1/BI OR 25038-54-
 4/BI OR 25085-53-4/BI OR 25685-29-4/BI OR 306997-46-6/B
 I OR 32131-17-2/BI OR 53200-31-0/BI OR 7631-86-9/BI OR
 852161-27-4/BI OR 9003-39-8/BI)
 L3 SCR 1918 OR 1838
 L4 STR
 C~~C F~~Ak~~CF3
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NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 GGCAT IS LIN SAT AT 4
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M3-X7 C AT 4

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE
 L5 29911 SEA FILE=REGISTRY SSS FUL L4 NOT L3
 L6 SCR 1918 OR 1838
 L7 STR
 C~~C F~~Ak~~CF3
 1 2 3 4 5

NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 GGCAT IS LIN SAT AT 4
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M3-X7 C AT 4

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE
 L8 (29911)SEA FILE=REGISTRY SSS FUL L7 NOT L6
 L9 STR

60
 O SO2 N~ Ak~ O
 @72 71 70 69 Ak~ N
 @126127
 Ak~ O~ C~ N
 @57 58 59 61 Ak~ SO2 Ak~ G1
 @114 113 112 111

 122
 O Ak~ SO2 Ak~ O
 @128129 @130131
 Ak~ S~ Ak~ G1 Ak~ N~ C~ N
 @120119 118 117 @124123 121 125

 133
 O SO2 N~ Ak G2 139 SO2 N~ Ak~ G1 11
 @136137 138 @1 2 3 140 O
 Ak~ S~ C O~ C
 @135134 132 @4 @5

 Ak~ SO2 N~ Ak~ G1 40 Ak~ N~ G1
 @26 17 16 15 14 @50 49 @66 62 63
 Ak~ S~ Ak~ G1
 @85 86 87 88 @33 32 31 30

Page 1-A

Ak~ O~ Ak~ G1 Ak~ SO2 Ak~ G1 Ak~ S~ Ak~ G1
 @78 77 76 75 @85 86 87 88 @91 92 93 94

Page 2-A

VAR G1=4/5

VAR G2=57/72/114/126/120/124/128/130/135/136/1/26/50/33/66/78/85/91

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 11
 CONNECT IS E1 RC AT 40
 CONNECT IS E1 RC AT 60
 CONNECT IS E2 RC AT 92
 CONNECT IS E2 RC AT 119
 CONNECT IS E1 RC AT 122
 CONNECT IS E1 RC AT 133
 CONNECT IS E2 RC AT 134
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 70

STEREO ATTRIBUTES: NONE
 L10 26835 SEA FILE=REGISTRY SUB=L8 SSS FUL L9
 L11 SCR 1918 OR 1838
 L12 STR
 C~ C F~ Ak~ CF3
 1 2 3 4 5

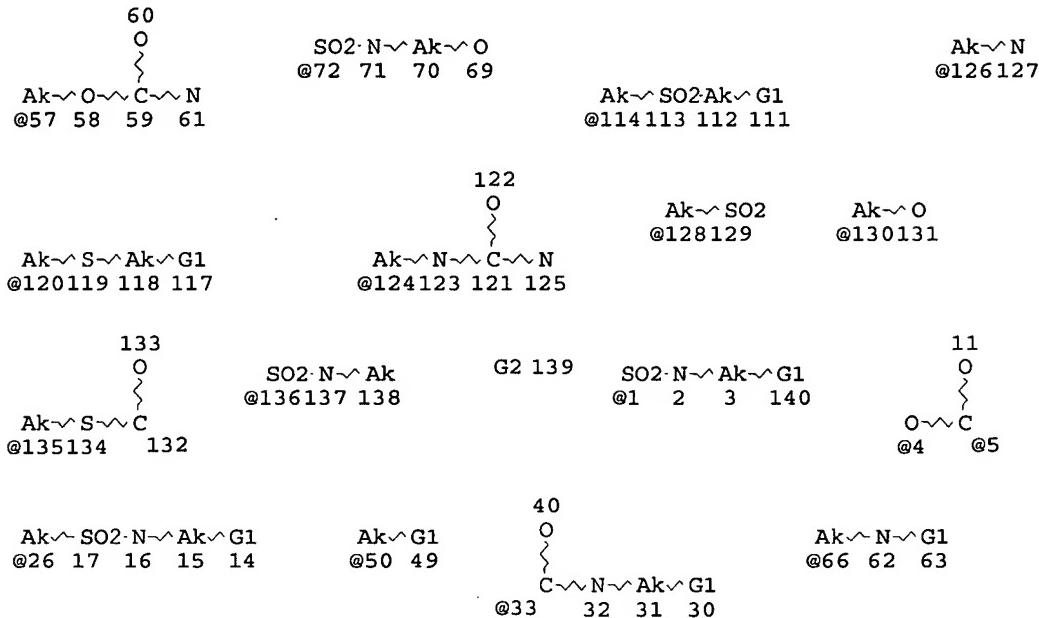
NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
 GGCAT IS LIN SAT AT 4
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M3-X7 C AT 4

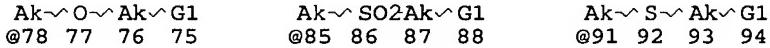
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE
L13 (29911) SEA FILE=REGISTRY SSS FUL L12 NOT L11
L14 STR



Page 1-A



Page 2-A

VAR G1=4/5

VAR G2=57/72/114/126/120/124/128/130/135/136/1/26/50/33/66/78/85/91

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 11
CONNECT IS E1 RC AT 40
CONNECT IS E1 RC AT 60
CONNECT IS E2 RC AT 92
CONNECT IS E2 RC AT 119
CONNECT IS E1 RC AT 122
CONNECT IS E1 RC AT 133
CONNECT IS E2 RC AT 134
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 70

STEREO ATTRIBUTES: NONE
L15 (26835) SEA FILE=REGISTRY SUB-L13 SSS FUL L14
L16 STR

N~~C~~N
1 2 3

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE

L17 715 SEA FILE=REGISTRY SUB=L15 SSS FUL L16

L18 SCR 1918 OR 1838

L19 STR

C~~C F~~Ak~~CF3
1 2 3 4 5

NODE ATTRIBUTES:

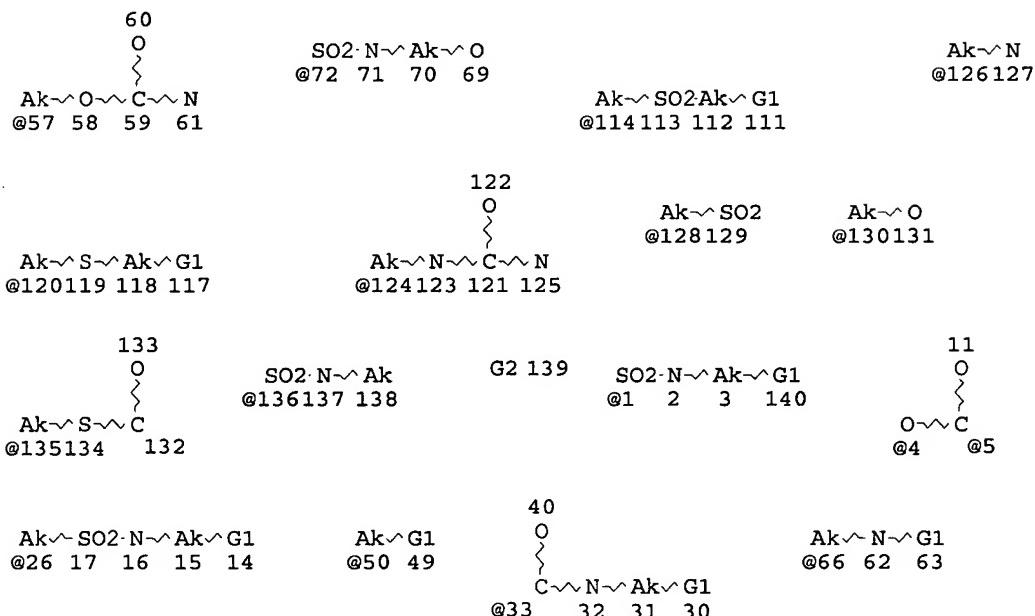
DEFAULT MLEVEL IS ATOM
GGCAT IS LIN SAT AT 4
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M3-X7 C AT 4

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L20 (29911)SEA FILE=REGISTRY SSS FUL L19 NOT L18
L21 STR



Page 1-A

Ak~~O~~Ak~~G1
@78 77 76 75 Ak~~SO2Ak~~G1
@85 86 87 88 Ak~~S~~Ak~~G1
@91 92 93 94

Page 2-A

VAR G1=4/5

VAR G2=57/72/114/126/120/124/128/130/135/136/1/26/50/33/66/78/85/91

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 11

CONNECT IS E1 RC AT 40

CONNECT IS E1 RC AT 60

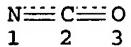
CONNECT IS E2 RC AT 92

CONNECT IS E2 RC AT 119

CONNECT IS E1 RC AT 122
 CONNECT IS E1 RC AT 133
 CONNECT IS E2 RC AT 134
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 70

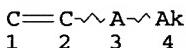
STEREO ATTRIBUTES: NONE
 L22 (26835)SEA FILE=REGISTRY SUB=L20 SSS FUL L21
 L23 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE
 L24 4147 SEA FILE=REGISTRY SUB=L22 SSS FUL L23
 L26 2 SEA FILE=REGISTRY ABB=ON PLU=ON L10 AND L2
 L34 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M12-X100 C AT 4

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE
 L36 174 SEA FILE=REGISTRY SUB=L10 SSS FUL L34
 L37 20 SEA FILE=REGISTRY ABB=ON PLU=ON L36 AND 2/NC
 L38 1024 SEA FILE=REGISTRY ABB=ON PLU=ON ?URETHAN?/CNS
 L39 1028 SEA FILE=REGISTRY ABB=ON PLU=ON ?UREYL?/CNS
 L40 53690 SEA FILE=REGISTRY ABB=ON PLU=ON ?GUANIDIN?/CNS
 L41 674 SEA FILE=REGISTRY ABB=ON PLU=ON ?CARBODIIMID?/CNS
 L43 5 SEA FILE=REGISTRY ABB=ON PLU=ON L5 AND (L38 OR L39
 OR L40 OR L41)
 L45 1 SEA FILE=REGISTRY ABB=ON PLU=ON 104559-01-5/RN
 L46 1 SEA FILE=REGISTRY ABB=ON PLU=ON 852161-27-4/RN
 L47 1 SEA FILE=REGISTRY ABB=ON PLU=ON 112-92-5/RN
 L48 1 SEA FILE=REGISTRY ABB=ON PLU=ON 53200-31-0/RN
 L49 1 SEA FILE=REGISTRY ABB=ON PLU=ON 306997-46-6/RN
 L50 1 SEA FILE=REGISTRY ABB=ON PLU=ON 112-96-9/RN
 L54 23393 SEA FILE=HCAPLUS ABB=ON PLU=ON L5
 L55 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L26
 L56 18293 SEA FILE=HCAPLUS ABB=ON PLU=ON L10
 L57 238 SEA FILE=HCAPLUS ABB=ON PLU=ON L17
 L58 1833 SEA FILE=HCAPLUS ABB=ON PLU=ON L24
 L59 413 SEA FILE=REGISTRY ABB=ON PLU=ON L17 AND L24
 L60 121 SEA FILE=HCAPLUS ABB=ON PLU=ON L59
 L61 165 SEA FILE=HCAPLUS ABB=ON PLU=ON L45/D OR L45/DP
 L62 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L46/D OR L46/DP

L63 509 SEA FILE=HCAPLUS ABB=ON PLU=ON L47/D OR L47/DP
 L64 77 SEA FILE=HCAPLUS ABB=ON PLU=ON L48/D OR L48/DP
 L65 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L49/D OR L49/DP
 L66 299 SEA FILE=HCAPLUS ABB=ON PLU=ON L50/D OR L50/DP
 L67 90 SEA FILE=HCAPLUS ABB=ON PLU=ON L36
 L68 140 SEA FILE=HCAPLUS ABB=ON PLU=ON L57 AND L58
 L70 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L37
 L71 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L43
 L73 64 SEA FILE=HCAPLUS ABB=ON PLU=ON L54 AND ((L61 OR L62
 OR L63 OR L64 OR L65 OR L66))
 L74 56395 SEA FILE=HCAPLUS ABB=ON PLU=ON L38
 L75 3185 SEA FILE=HCAPLUS ABB=ON PLU=ON L39
 L76 144447 SEA FILE=HCAPLUS ABB=ON PLU=ON L40
 L77 10203 SEA FILE=HCAPLUS ABB=ON PLU=ON L41
 L78 387 SEA FILE=HCAPLUS ABB=ON PLU=ON L54 AND ((L74 OR L75
 OR L76 OR L77) OR ?UREYLEN? OR ?URETHANYLBIURETYL? OR
 ?URETHAN? (A) ?BIURIETYL? OR ?GUANIDIN? OR ?CARBODIIMID?)
 L80 113402 SEA FILE=HCAPLUS ABB=ON PLU=ON FIBER?/SC,SX
 L82 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L67 AND ((L74 OR L75
 OR L76 OR L77) OR ?UREYLEN? OR ?URETHANYLBIURETYL? OR
 ?URETHAN? (A) ?BIURIETYL? OR ?GUANIDIN? OR ?CARBODIIMID?)
 L85 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 AND L57
 L86 140 SEA FILE=HCAPLUS ABB=ON PLU=ON L60 OR L68
 L87 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L86 AND L80
 L88 270766 SEA FILE=HCAPLUS ABB=ON PLU=ON COAT?/SC,SX
 L89 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L86 AND L88
 L92 7724 SEA FILE=HCAPLUS ABB=ON PLU=ON COATINGS/CT
 L93 125107 SEA FILE=HCAPLUS ABB=ON PLU=ON COATING PROCESS/CT
 L94 271789 SEA FILE=HCAPLUS ABB=ON PLU=ON COATING MATERIALS/CT
 L95 2026 SEA FILE=HCAPLUS ABB=ON PLU=ON L56 AND ((L92 OR L93
 OR L94))
 L96 21863 SEA FILE=HCAPLUS ABB=ON PLU=ON ANTISOIL? OR (ANTI OR
 REPEL? OR PREVENT? STOP?) (A) (SOIL? OR DIRT? OR DUST?
 OR WATER? OR OIL?)
 L97 1931 SEA FILE=HCAPLUS ABB=ON PLU=ON L96 AND L56
 L98 707 SEA FILE=HCAPLUS ABB=ON PLU=ON L95 AND L97
 L99 3541 SEA FILE=HCAPLUS ABB=ON PLU=ON ANTISOIL? OR ANTI (A) SO
 IL?
 L103 301171 SEA FILE=HCAPLUS ABB=ON PLU=ON TEXTIL?/SC,SX
 L104 99 SEA FILE=HCAPLUS ABB=ON PLU=ON L56 AND L88 AND (L103
 OR L80)
 L105 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L67 AND L88 AND (L103
 OR L80)
 L106 QUE ABB=ON PLU=ON FABRIC? OR TEXTILE? OR CLOTH? OR G
 ARMENT? OR NAPER OR DRAPER OR WEAV? OR WOVE? OR WEFT? O
 R WEB? OR SPIN? OR SPUN? OR FIBER? OR FIBRE# OR NET OR
 NETTING?
 L107 147 SEA FILE=HCAPLUS ABB=ON PLU=ON L106 AND L98
 L108 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L78 AND L107
 L109 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L73 AND L107
 L110 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L67 AND L107
 L111 96 SEA FILE=HCAPLUS ABB=ON PLU=ON L104 AND L106
 L113 15 SEA FILE=HCAPLUS ABB=ON PLU=ON L111 AND L99
 L114 46 SEA FILE=HCAPLUS ABB=ON PLU=ON L55 OR L70 OR L71 OR
 L82 OR L85 OR L87 OR L89 OR L105 OR (L108 OR L109 OR
 L110)
 L116 57 SEA FILE=HCAPLUS ABB=ON PLU=ON L114 OR L113
 L117 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L116 NOT L114

=> d l117 1-11 ibib abs hitstr hitind

L117 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2003:271885 HCAPLUS

DOCUMENT NUMBER: 138:305497
TITLE: Water absorption oil-repellent
antisoil finishing composition and
finishing fiber products thereof
INVENTOR(S): Tsujimoto, Hiroshi; Miura, Hiroyuki; Sakai,
Yoshiaki; Nakaya, Shoji; Kito, Kiyoshi
PATENT ASSIGNEE(S): Shikibo, Ltd., Japan; Takamatsu Yushi K. K.
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

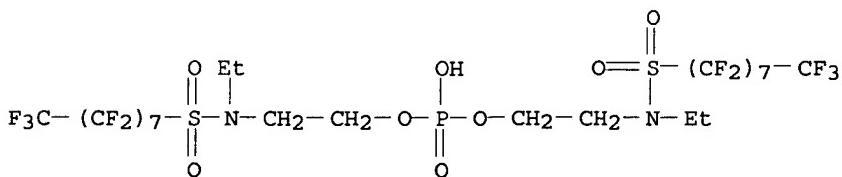
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2003105319	A2	20030409	JP 2001-301604	2001 0928
RIGHTS APPLN. INFO.:			JP 2001-301604	2001 0928

AB The fiber finishing composition, useful for spray containers, comprises (A) 15-90 wt% of copolymers prepared by polymerizing perfluoro alkyl group-containing acrylates and alkoxylation acrylates in the presence of $(R1F-A-O)mP:O(OH)n(O-)3-m-n\bullet(Y1+)3-m-n$, wherein R1F is a perfluoroalkyl group, A = divalent organic group, m = 1 or 2, n = 0 or 1, Y⁺ is a counter ion, and (B) 10-85 wt% of terpolymers of perfluoroalkyl group-containing acrylates, alkoxylation acrylates, and nitrogen-containing acrylates. Thus, a composition was prepared by mixing 2-acryloylamino-2-methyl-1-propane sulfonic acid ammonium salt-NK Ester M 230G graft copolymer containing bis(2-perfluorooctylethyl) phosphate ammonium salt and acrylonitrile-nonadecafluoroundecyl methacrylate-NK Ester M 230G graft copolymer.

IT 30381-98-7P, Bis(2-perfluoroctylsulfonyl-N-ethylaminoethyl) phosphate ammonium salt 146837-02-7P,
2-Perfluoroctylsulfonyl-N-ethylaminoethyl phosphate ammonium salt
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(production of water absorption oil-repellent antisoil
finishing composition for finishing fiber products)

RN 30381-98-7 HCAPLUS

CN 1-Octanesulfonamide, N,N'-[phosphinicobis(oxy-2,1-ethanediyl)]bis[N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, ammonium salt (9CI) (CA INDEX NAME)



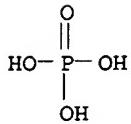
● NH₃

RN 146837-02-7 HCAPLUS
CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-, phosphate (ester), ammonium

salt (9CI) (CA INDEX NAME)

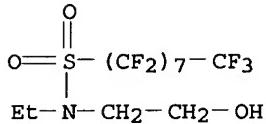
CM 1

CRN 7664-38-2
CMF H3 O4 P



CM 2

CRN 1691-99-2
CMF C12 H10 F17 N O3 S



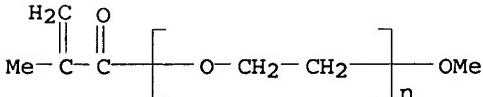
IT 507273-20-3P, Acrylonitrile-nonadecafluoroundecyl methacrylate-NK Ester M 230G graft copolymer 507273-21-4P, N-Methylolacrylamide-nonadecafluoroundecyl methacrylate-NK Ester M 90G graft copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(production of water absorption oil-repellent antisoil finishing composition for finishing fiber products)

RN 507273-20-3 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoroundecyl ester, polymer with α -(2-methyl-1-oxo-2-propenyl)- ω -methoxypoly(oxy-1,2-ethanediyl) and 2-propenenitrile, graft (9CI) (CA INDEX NAME)

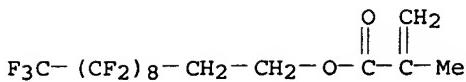
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 2

CRN 15899-09-9
CMF C15 H9 F19 O2

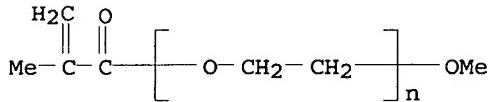


CM 3

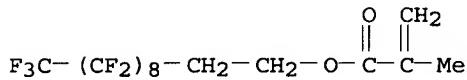
CRN 107-13-1
CMF C3 H3 N

RN 507273-21-4 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,
 11,11-nonadecafluoroundecyl ester, polymer with
 N-(hydroxymethyl)-2-propenamide and α -(2-methyl-1-oxo-2-
 propenyl)- ω -methoxypoly(oxy-1,2-ethanediyl), graft (9CI)
 (CA INDEX NAME)

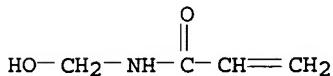
CM 1

CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS

CM 2

CRN 15899-09-9
CMF C15 H9 F19 O2

CM 3

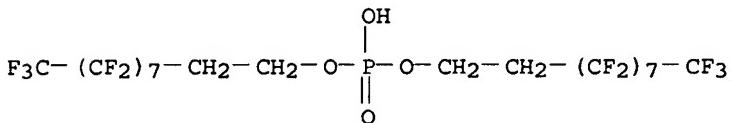
CRN 924-42-5
CMF C4 H7 N O2

IT 93776-20-6P, Bis(2-perfluorooctylethyl) phosphate ammonium
 salt 362049-20-5P, 2-Perfluorooctylethyl phosphate
 ammonium salt
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PREP (Preparation); USES (Uses)
 (starting materials; production of water absorption oil-repellent

antisoil finishing composition for finishing fiber
products)

RN 93776-20-6 HCPLUS

CN 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-,
hydrogen phosphate, ammonium salt (9CI) (CA INDEX NAME)



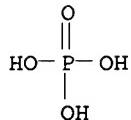
● NH₃

RN 362049-20-5 HCPLUS

CN 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-,
phosphate, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 7664-38-2
CMF H₃ O₄ P



CM 2

CRN 678-39-7
CMF C₁₀ H₅ F₁₇ O

HO-CH₂-CH₂-(CF₂)₇-CF₃

IT 678-39-7, 2-Perfluorooctylethyl alcohol 1691-99-2
, 2-Perfluorooctylsulfonyl-N-ethylaminoethyl alcohol
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting materials; production of water absorption oil-repellent
antisoil finishing composition for finishing fiber
products)

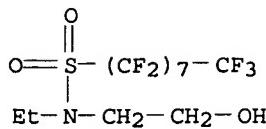
RN 678-39-7 HCPLUS

CN 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-
(7CI, 8CI, 9CI) (CA INDEX NAME)

HO-CH₂-CH₂-(CF₂)₇-CF₃

RN 1691-99-2 HCPLUS

CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-
heptadecafluoro-N-(2-hydroxyethyl)- (6CI, 7CI, 8CI, 9CI) (CA
INDEX NAME)



- IC ICM C09K003-00
 ICS C08L033-14; C08L033-16; C08L033-26; C08L041-00; D06M013-282;
 D06M015-277
- CC 40-9 (**Textiles and Fibers**)
 Section cross-reference(s): 42
- ST water absorption oil repellent **antisoil** finishing compn
 fiber
- IT Coating materials
 (antisoiling, water-resistant; production of water
 absorption oil-repellent **antisoil** finishing composition
 for finishing **fiber** products)
- IT Oil-resistant materials
 Textiles
 (production of water absorption oil-repellent **antisoil**
 finishing composition for finishing **fiber** products)
- IT Fluoropolymers, uses
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 PRP (Properties); TEM (Technical or engineered material use); PREP
 (Preparation); USES (Uses)
 (production of water absorption oil-repellent **antisoil**
 finishing composition for finishing **fiber** products)
- IT Containers
 (spray; production of water absorption oil-repellent
 antisoil finishing composition for finishing **fiber**
 products)
- IT 2997-92-4, 2,2'-Azobis(2-amidinopropane) dihydrochloride
 RL: CAT (Catalyst use); USES (Uses)
 (production of water absorption oil-repellent **antisoil**
 finishing composition for finishing **fiber** products)
- IT 30381-98-7P, Bis(2-perfluoroctylsulfonyl-N-
 ethylaminoethyl) phosphate ammonium salt 146837-02-7P,
 2-Perfluoroctylsulfonyl-N-ethylaminoethyl phosphate ammonium salt
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PREP (Preparation); USES (Uses)
 (production of water absorption oil-repellent **antisoil**
 finishing composition for finishing **fiber** products)
- IT 507234-19-7P, 2-Acryloylamino-2-methyl-1-propane sulfonic acid
 ammonium salt-NK Ester M 230G graft copolymer 507234-20-0P
 507273-20-3P, Acrylonitrile-nonadecafluoroundecyl
 methacrylate-NK Ester M 230G graft copolymer 507273-21-4P
 , N-Methylolacrylamide-nonadecafluoroundecyl methacrylate-NK Ester
 M 90G graft copolymer 507475-82-3P 507475-84-5P, Ethylene
 oxide-vinylsulfonic acid sodium salt graft copolymer methyl ether
 507476-07-5P, Acrylonitrile-ethylene oxide-nonadecafluoroundecyl
 methacrylate graft copolymer methyl ether 507476-09-7P,
 N-Methylolacrylamide-ethylene oxide-nonadecafluoroundecyl
 methacrylate graft copolymer methyl ether
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 PRP (Properties); TEM (Technical or engineered material use); PREP
 (Preparation); USES (Uses)
 (production of water absorption oil-repellent **antisoil**
 finishing composition for finishing **fiber** products)
- IT 111-88-6, n-Octylmercaptan
 RL: MOA (Modifier or additive use); USES (Uses)
 (production of water absorption oil-repellent **antisoil**
 finishing composition for finishing **fiber** products)
- IT 7664-41-7, Ammonia, reactions
 RL: RGT (Reagent); RACT (Reactant or reagent)

- (production of water absorption oil-repellent **antisoil**
finishing composition for finishing fiber products)
- IT 67-63-0, Isopropyl alcohol, uses 7580-85-0, Ethylene glycol
mono-tert-butyl ether
RL: NUU (Other use, unclassified); USES (Uses)
(solvent; production of water absorption oil-repellent
antisoil finishing composition for finishing fiber
products)
- IT 93776-20-6P, Bis(2-perfluorooctylethyl) phosphate ammonium
salt 362049-20-5P, 2-Perfluorooctylethyl phosphate
ammonium salt
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(starting materials; production of water absorption oil-repellent
antisoil finishing composition for finishing fiber
products)
- IT 678-39-7, 2-Perfluorooctylethyl alcohol 1314-56-3,
Phosphoric acid anhydride, reactions 1691-99-2,
2-Perfluorooctylsulfonyl-N-ethylaminoethyl alcohol
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting materials; production of water absorption oil-repellent
antisoil finishing composition for finishing fiber
products)

L117 ANSWER 2 OF 11 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:173549 HCPLUS

DOCUMENT NUMBER: 138:225461

TITLE: Aqueous fluorochemical polymer composition for
water and oil repellent treatment of masonry
and well bores

INVENTOR(S): Fan, Wayne W.; Martin, Steven J.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003018508	A1	20030306	WO 2002-US15937	2002 0516
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003083448	A1	20030501	US 2001-938188	2001 0823
US 6689854 CA 2459494	B2 AA	20040210 20030306	CA 2002-2459494	2002 0516
EP 1423347	A1	20040602	EP 2002-737011	2002

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R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR		
JP 2005501138	T2	20050113	JP 2003-523174
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US 2004186254	A1	20040923	US 2004-766127
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PRIORITY APPLN. INFO.:			0128
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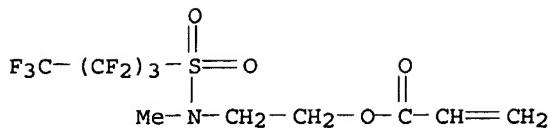
AB The present invention provides a water-soluble and shelf-stable aqueous fluorochem. polymeric treatment useful to treat porous substrates to render them repellent to water- and oil-based stains. The treatment comprises a water-soluble or dispersible fluorochem. polymer of formula: -[CR(COXR1Rf)CH₂]_a[CR(CO(OR₂CO)_mO-M₊)CH₂]_b[CR(COXR3Si(OR₄)₃)CH₂]_c[CRYCH₂]d-, in which Rf = C₃-6 fluoroalkyl; R₁ = hydrocarbyl; X = O, N, or S; R₂ = short-chain alkylene; m = 0 or 1; M₊ = H or mono- or multivalent cation; R₃ = hydrocarbyl; R₄ = H, Me, Et, or Bu; Y = a non-hydrophilic group; a, b, and c are ≥1, d ≥0, and containing only carbon atoms in the backbone, with a plurality of each of the following groups pendent from the backbone: (a) fluoroaliph. groups, (b) carboxyl-containing groups, (c) silyl groups and optionally (d) other non-hydrophilic groups. Because the water-soluble polymeric treatment of the present invention, and the shelf-stable aqueous solns. thereof, can be applied to porous substrates in aqueous solution, they eliminate the need for environmentally harmful and toxic co-solvents. Particularly when applied to masonry and other siliceous materials, these polymeric treatments can react with the substrate onto which they are applied to form an invisible and water-insol. coating that repels both water and oil, resists soiling, and that cannot be easily washed from the surface of the substrate. Substrates treated with these polymers are thereby durably protected from rain and normal weathering.

IT 500569-53-9P 500569-54-0P 500569-55-1P
 500569-56-2P 500569-57-3P 500569-58-4P
 500569-59-5P 500569-60-8P 500569-61-9P
 500569-62-0P 500569-63-1P 500569-64-2P
 500569-65-3P 500569-66-4P 500569-67-5P
 RL: NUU (Other use, unclassified); SPN (Synthetic preparation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (aqueous treating composition; aqueous fluorochem. polymer composition for water and oil repellent treatment of masonry and well bores and porous materials)

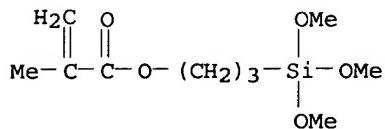
RN 500569-53-9 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

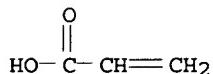
CRN 67584-55-8
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CM 2

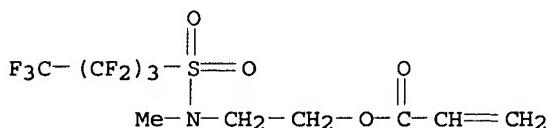
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CMF C10 H20 O5 Si

CM 3

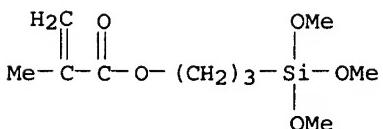
CRN 79-10-7
CMF C3 H4 O2

RN 500569-54-0 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

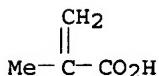
CM 1

CRN 67584-55-8
CMF C10 H10 F9 N O4 S

CM 2

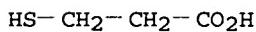
CRN 2530-85-0
CMF C10 H20 O5 Si

CM 3

CRN 79-41-4
CMF C4 H6 O2

RN 500569-55-1 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,
 telomer with 3-mercaptopropanoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and
 2-propenoic acid (9CI) (CA INDEX NAME)

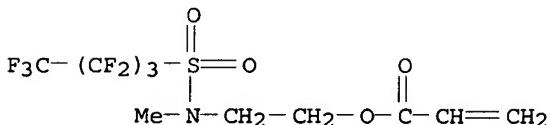
CM 1

CRN 107-96-0
CMF C3 H6 O2 S

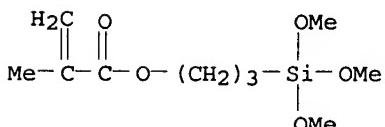
CM 2

CRN 500569-53-9
CMF (C10 H20 O5 Si . C10 H10 F9 N O4 S . C3 H4 O2)x
CCI PMS

CM 3

CRN 67584-55-8
CMF C10 H10 F9 N O4 S

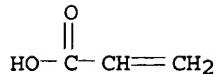
CM 4

CRN 2530-85-0
CMF C10 H20 O5 Si

CM 5

CRN 79-10-7

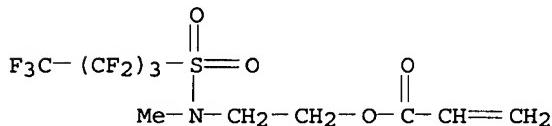
CMF C3 H4 O2



RN 500569-56-2 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,
 polymer with butyl 2-propenoate, 2-[methyl[(nonafluorobutyl)sulfon
 yl]amino]ethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX
 NAME)

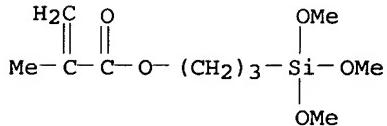
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CRN 67584-55-8
 CMF C10 H10 F9 N O4 S



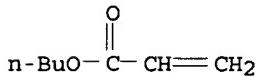
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CRN 2530-85-0
 CMF C10 H20 O5 Si



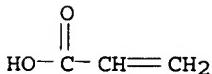
CM 3

CRN 141-32-2
 CMF C7 H12 O2



CM 4

CRN 79-10-7
 CMF C3 H4 O2

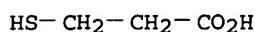


RN 500569-57-3 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,
telomer with butyl 2-propenoate, 3-mercaptopropanoic acid,
2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and
2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 107-96-0
CMF C3 H6 O2 S

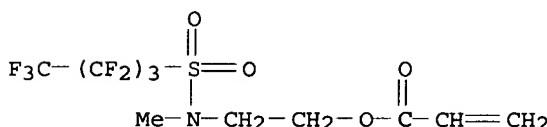


CM 2

CRN 500569-56-2
CMF (C10 H20 O5 Si . C10 H10 F9 N O4 S . C7 H12 O2 . C3 H4 O2)x
CCI PMS

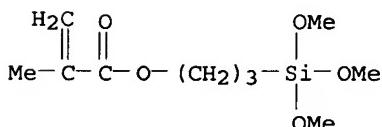
CM 3

CRN 67584-55-8
CMF C10 H10 F9 N 04 S



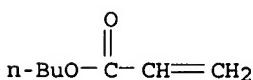
CM 4

CRN 2530-85-0
CMF C10 H20 O5 Si



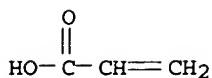
CM 5

CRN 141-32-2
CMF C7 H12 O2



CM 6

CRN 79-10-7
CMF C3 H4 O2



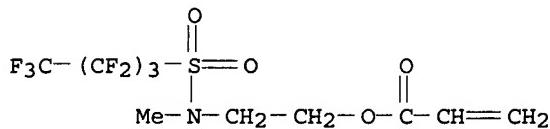
RN 500569-58-4 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,
2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and
3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX
NAME)

CM 1

CRN 67584-55-8

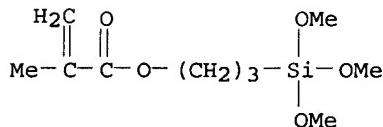
CMF C10 H10 F9 N O4 S



CM 2

CRN 2530-85-0

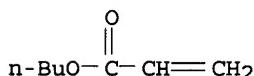
CMF C10 H20 O5 Si



CM 3

CRN 141-32-2

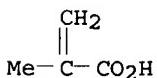
CMF C7 H12 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



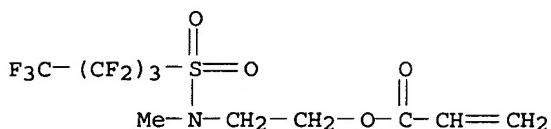
RN 500569-59-5 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,
polymer with dodecyl 2-propenoate, 2-[methyl[(nonafluorobutyl)sulf

onyl]aminoethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

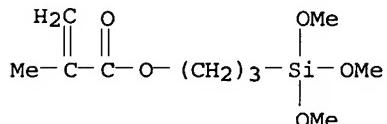
CM 1

CRN 67584-55-8
CMF C10 H10 F9 N O4 S



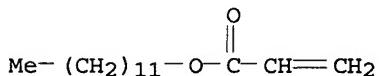
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CRN 2530-85-0
CMF C10 H20 O5 Si



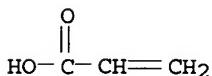
CM 3

CRN 2156-97-0
CMF C15 H28 O2



CM 4

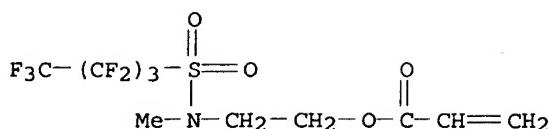
CRN 79-10-7
CMF C3 H4 O2



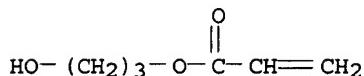
RN 500569-60-8 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with 3-hydroxypropyl 2-propenoate, 2-[methyl [(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

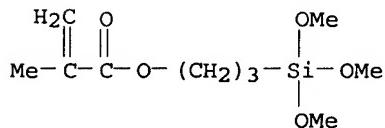
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CMF C10 H10 F9 N O4 S



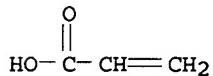
CM 2

CRN 2761-08-2
CMF C6 H10 O3

CM 3

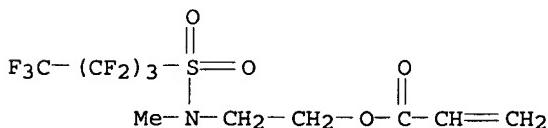
CRN 2530-85-0
CMF C10 H20 O5 Si

CM 4

CRN 79-10-7
CMF C3 H4 O2

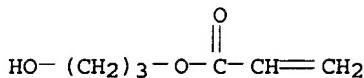
RN 500569-61-9 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,
 polymer with butyl 2-propenoate, 3-hydroxypropyl 2-propenoate,
 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and
 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 67584-55-8
CMF C10 H10 F9 N O4 S

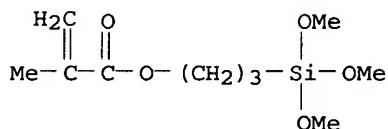
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CRN 2761-08-2
CMF C6 H10 O3



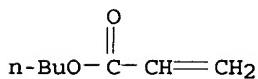
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CRN 2530-85-0
CMF C10 H20 O5 Si



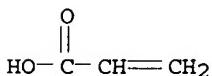
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CRN 141-32-2
CMF C7 H12 O2



CM 5

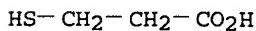
CRN 79-10-7
CMF C3 H4 O2



RN 500569-62-0 HCPLUS
CN 2-Propenoic acid, 2-methyl-, telomer with 3-mercaptopropanoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 107-96-0
CMF C3 H6 O2 S

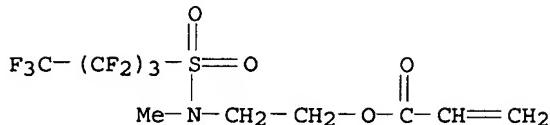


CM 2

CRN 500569-54-0
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 CCI PMS

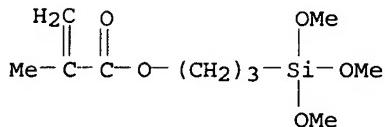
CM 3

CRN 67584-55-8
 CMF C10 H10 F9 N O4 S



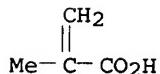
CM 4

CRN 2530-85-0
 CMF C10 H20 O5 Si



CM 5

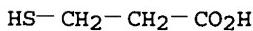
CRN 79-41-4
 CMF C4 H6 O2



RN 500569-63-1 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, telomer with butyl 2-propenoate,
 3-mercaptopropanoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amin
 o]ethyl 2-propenoate and 3-(trimethoxysilyl)propyl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 107-96-0
 CMF C3 H6 O2 S

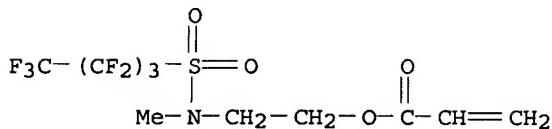


CM 2

CRN 500569-58-4
 CMF (C10 H20 O5 Si . C10 H10 F9 N O4 S . C7 H12 O2 . C4 H6 O2)x
 CCI PMS

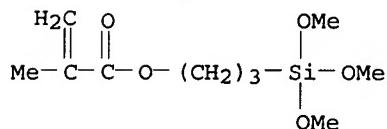
CM 3

CRN 67584-55-8
 CMF C10 H10 F9 N O4 S



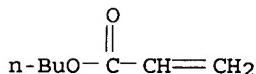
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CRN 2530-85-0
 CMF C10 H20 O5 Si



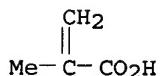
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CRN 141-32-2
 CMF C7 H12 O2



CM 6

CRN 79-41-4
 CMF C4 H6 O2



RN 500569-64-2 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,
 telomer with dodecyl 2-propenoate, 3-mercaptopropanoic acid,
 2-[methyl [(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate and
 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 107-96-0
 CMF C3 H6 O2 S

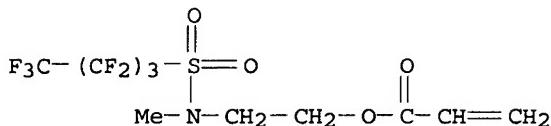
HS-CH₂-CH₂-CO₂H

CM 2

CRN 500569-59-5
 CMF (C15 H28 O2 . C10 H20 O5 Si . C10 H10 F9 N O4 S . C3 H4 O2)x
 CCI PMS

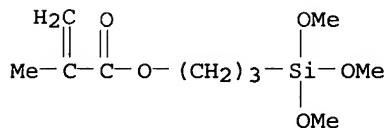
CM 3

CRN 67584-55-8
 CMF C10 H10 F9 N O4 S



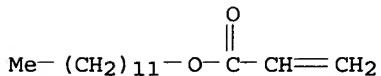
CM 4

CRN 2530-85-0
 CMF C10 H20 O5 Si



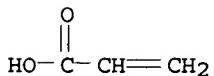
CM 5

CRN 2156-97-0
 CMF C15 H28 O2



CM 6

CRN 79-10-7
 CMF C3 H4 O2

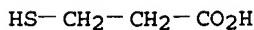


RN 500569-65-3 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,
 telomer with 3-hydroxypropyl 2-propenoate, 3-mercaptopropanoic
 acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate
 and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 107-96-0

CMF C3 H6 O2 S

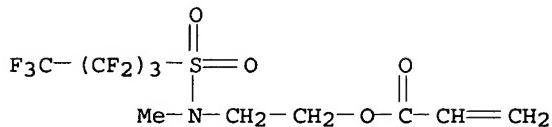


CM 2

CRN 500569-60-8
 CMF (C10 H20 O5 Si . C10 H10 F9 N O4 S . C6 H10 O3 . C3 H4 O2)x
 CCI PMS

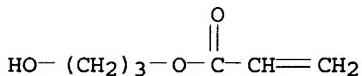
CM 3

CRN 67584-55-8
 CMF C10 H10 F9 N O4 S



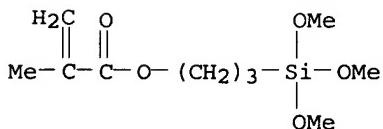
CM 4

CRN 2761-08-2
 CMF C6 H10 O3



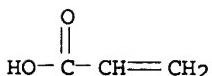
CM 5

CRN 2530-85-0
 CMF C10 H20 O5 Si



CM 6

CRN 79-10-7
 CMF C3 H4 O2

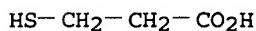


RN 500569-66-4 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,

telomer with butyl 2-propenoate, 3-hydroxypropyl 2-propenoate,
3-mercaptopropanoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amin
o]ethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 107-96-0
CMF C3 H6 O2 S

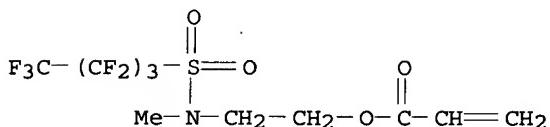


CM 2

CRN 500569-61-9
CMF (C10 H20 O5 Si . C10 H10 F9 N O4 S . C7 H12 O2 . C6 H10 O3 .
C3 H4 O2)x
CCI PMS

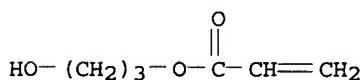
CM 3

CRN 67584-55-8
CMF C10 H10 F9 N O4 S



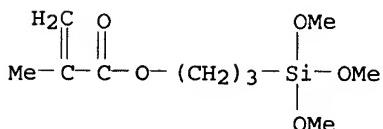
CM 4

CRN 2761-08-2
CMF C6 H10 O3



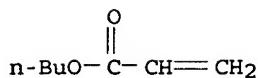
CM 5

CRN 2530-85-0
CMF C10 H20 O5 Si

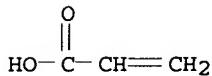


CM 6

CRN 141-32-2
CMF C7 H12 O2



CM 7

CRN 79-10-7
CMF C3 H4 O2

RN 500569-67-5 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,
 telomer with 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl
 2-propenoate, 1-octanethiol and 2-propenoic acid (9CI) (CA INDEX
 NAME)

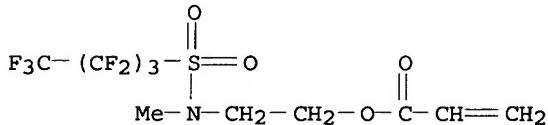
CM 1

CRN 111-88-6
CMF C8 H18 SHS- (CH₂)₇-Me

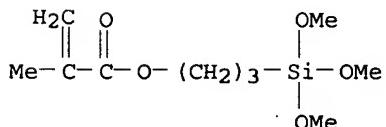
CM 2

CRN 500569-53-9
 CMF (C₁₀ H₂₀ O₅ Si . C₁₀ H₁₀ F₉ N O₄ S . C₃ H₄ O₂)_x
 CCI PMS

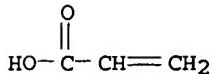
CM 3

CRN 67584-55-8
CMF C₁₀ H₁₀ F₉ N O₄ S

CM 4

CRN 2530-85-0
CMF C₁₀ H₂₀ O₅ Si

CM 5

CRN 79-10-7
CMF C3 H4 O2

- IC ICM C04B041-48
ICS C08F220-24; E21B043-25
CC 58-4 (Cement, Concrete, and Related Building Materials)
Section cross-reference(s): 38, 40, 42, 45,
51, 61
IT Coating materials
(antisoiling, water-resistant, aqueous fluorochem.
polymers; aqueous fluorochem. polymer composition for water and oil
repellent treatment of masonry and well bores and porous
materials)
IT Coating materials
(antisoiling, weather-resistant, aqueous fluorochem.
polymers; aqueous fluorochem. polymer composition for water and oil
repellent treatment of masonry and well bores and porous
materials)
IT Environmental pollution control
Leather
Masonry
Porous materials
Soilproofing
Textiles
Tiles
Wells
Wettability
(aqueous fluorochem. polymer composition for water and oil repellent
treatment of masonry and well bores and porous materials)
IT 500569-53-9P 500569-54-0P 500569-55-1P
500569-56-2P 500569-57-3P 500569-58-4P
500569-59-5P 500569-60-8P 500569-61-9P
500569-62-0P 500569-63-1P 500569-64-2P
500569-65-3P 500569-66-4P 500569-67-5P
RL: NUU (Other use, unclassified); SPN (Synthetic preparation);
TEM (Technical or engineered material use); PREP (Preparation);
USES (Uses)
(aqueous treating composition; aqueous fluorochem. polymer composition for water
and oil repellent treatment of masonry and well bores and
porous materials)
- REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L117 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:944841 HCAPLUS
 DOCUMENT NUMBER: 138:25868
 TITLE: Water- and oilproofing compositions with long
service life
 INVENTOR(S): Maekawa, Takashige; Shindo, Minako; Tada,
Masako
 PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002356671	A2	20021213	JP 2001-164821	2001 0531
PRIORITY APPLN. INFO.:			JP 2001-164821	2001 0531

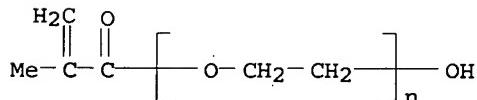
AB The compns. useful for fabric finishing, are obtained from copolymers of (A) monomers bearing polyfluoroalkyl Rf groups rendering microcryst. m.p. of >100° to its homopolymer, e.g. (meth)acrylate C>10 linear fluoroalkyl esters, and (B) monomers bearing polyfluoroalkyl Rf groups which do not have microcryst. m.p. or have a homopolymer microcryst. m.p. of <30°, e.g. (meth)acrylate C>6 linear fluoroalkyl esters. Thus, heating C₆F₁₃C₂H₄COCH:CH₂ (no homopolymer microcryst. m.p.) 1.45 with C₁₀F₂₁C₂H₄COCH:CH₂ (homopolymer microcryst. m.p. 125°) 12.25, stearyl acrylate 20.21, hydroxyethyl acrylate 0.69, polyethylene glycol monomethacrylate 0.69, polyethylene glycol octylphenyl ether 20% aqueous solution 13.78, stearyltriethylammonium chloride 10% aqueous solution 6.89, water 25.83, acetone 17.23, stearyl mercaptan 0.18 and 2,2'-azobis(2-methylpropionamide) dihydrochloride 0.07 g at 60° for 12 h gave a copolymer solution useful for fabric finishing.

IT 478034-20-7P 478034-21-8P 478034-22-9P
 478034-23-0P 478034-24-1P 478034-25-2P
 478034-26-3P 478034-27-4P 478034-28-5P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (manufacture of water- and oilproofing compns. with long service life for fabric finishing)

RN 478034-20-7 HCPLUS
 CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl ester, polymer with 2-hydroxyethyl 2-propenoate, α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly(oxy-1,2-ethanediyl), octadecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyl 2-propenoate, graft (9CI) (CA INDEX NAME)

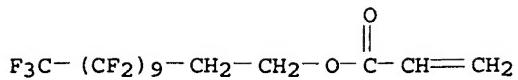
CM 1

CRN 25736-86-1
 CMF (C₂ H₄ O)_n C₄ H₆ O₂
 CCI PMS

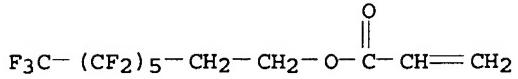


CM 2

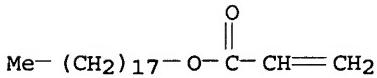
CRN 17741-60-5
 CMF C₁₅ H₇ F₂₁ O₂



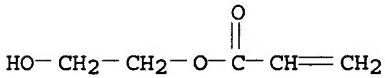
CM 3

CRN 17527-29-6
CMF C11 H7 F13 O2

CM 4

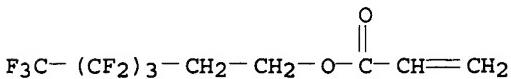
CRN 4813-57-4
CMF C21 H40 O2

CM 5

CRN 818-61-1
CMF C5 H8 O3

RN 478034-21-8 HCAPLUS
 CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl ester, polymer with 2-hydroxyethyl 2-propenoate, α -(2-methyl-1-oxo-2-propenyl)- ω -hydroxypoly(oxy-1,2-ethanediyl), 3,3,4,4,5,5,6,6,6-nonafluorohexyl 2-propenoate and octadecyl 2-propenoate, graft (9CI) (CA INDEX NAME)

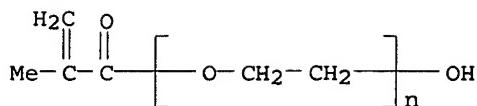
CM 1

CRN 52591-27-2
CMF C9 H7 F9 O2

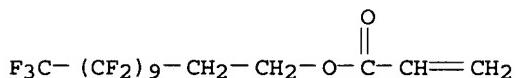
CM 2

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2

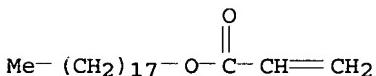
CCI PMS



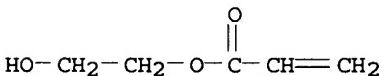
CM 3

CRN 17741-60-5
CMF C15 H7 F21 O2

CM 4

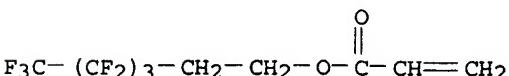
CRN 4813-57-4
CMF C21 H40 O2

CM 5

CRN 818-61-1
CMF C5 H8 O3

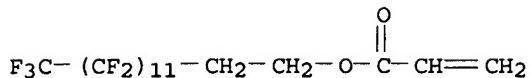
RN 478034-22-9 HCAPLUS
 CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosfluorododecyl ester, polymer with 2-hydroxyethyl 2-propenoate, α -(2-methyl-1-oxo-2-propenyl)- ω -hydroxypoly(oxy-1,2-ethanediyl), 3,3,4,4,5,5,6,6,6-nonafluorohexyl 2-propenoate, octadecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-pentacosfluorotetradecyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 52591-27-2
CMF C9 H7 F9 O2

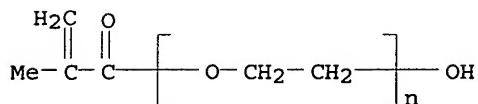
CM 2

CRN 34395-24-9
 CMF C17 H7 F25 O2



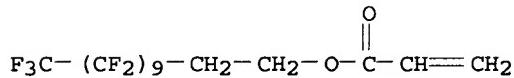
CM 3

CRN 25736-86-1
 CMF (C₂ H₄ O)_n C₄ H₆ O₂
 CCI PMS



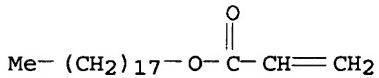
CM 4

CRN 17741-60-5
 CMF C₁₅ H₇ F₂₁ O₂



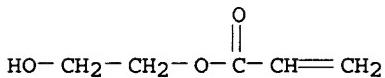
CM 5

CRN 4813-57-4
 CMF C₂₁ H₄₀ O₂



CM 6

CRN 818-61-1
 CMF C₅ H₈ O₃

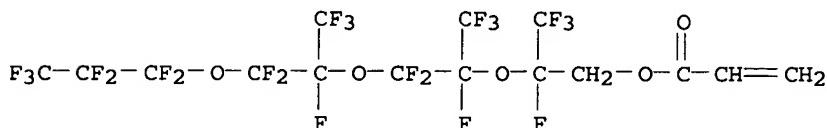


RN 478034-23-0 HCAPLUS
 CN 2-Propenoic acid, 2-[1-[[1-[difluoro(heptafluoropropoxy)methyl]-1,2,2,2-tetrafluoroethoxy]difluoromethyl]-1,2,2,2-tetrafluoroethoxy]-2,3,3,3-tetrafluoropropyl ester, polymer with

3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-
 heneicosfluorododecyl 2-propenoate, 2-hydroxyethyl 2-propenoate,
 α -(2-methyl-1-oxo-2-propenyl)- ω -hydroxypoly(oxy-1,2-
 ethanediyl) and octadecyl 2-propenoate, graft (9CI) (CA INDEX
 NAME)

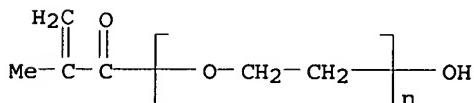
CM 1

CRN 472960-49-9
 CMF C15 H5 F23 O5



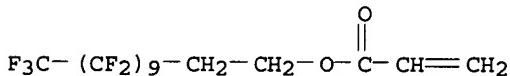
CM 2

CRN 25736-86-1
 CMF (C₂ H₄ O)_n C₄ H₆ O₂
 CCI PMS



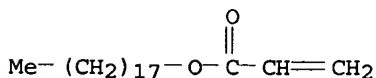
CM 3

CRN 17741-60-5
 CMF C15 H7 F21 O2



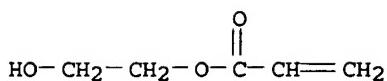
CM 4

CRN 4813-57-4
 CMF C₂₁ H₄₀ O₂



CM 5

CRN 818-61-1
 CMF C₅ H₈ O₃



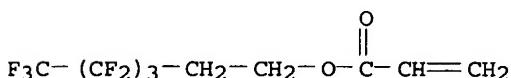
RN 478034-24-1 HCAPLUS

CN 2-Butenedioic acid (2Z)-, bis(2-ethylhexyl) ester, polymer with
 N-(hydroxymethyl)-2-propenamide, 3,3,4,4,5,5,6,6,6-nonafluorohexyl
 2-propenoate, α -(9Z)-9-octadecenyl- ω -hydroxypoly(oxy-
 1,2-ethanediyl) and 3,3,4,4,5,5,6,6,7,7,8,8-tridecafluoroctyl
 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 52591-27-2

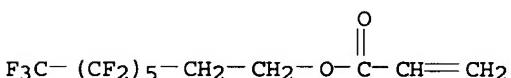
CMF C9 H7 F9 O2



CM 2

CRN 17527-29-6

CMF C11 H7 F13 O2

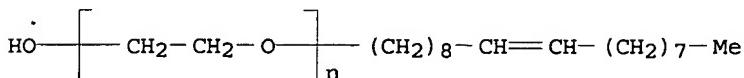


CM 3

CRN 9004-98-2

CMF (C2 H4 O)n C18 H36 O

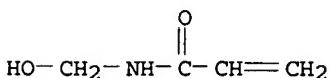
CCI PMS



CM 4

CRN 924-42-5

CMF C4 H7 N O2

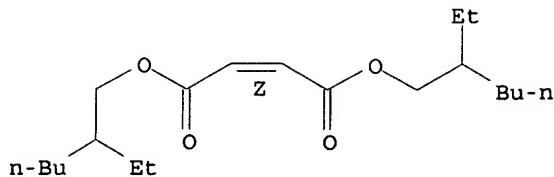


CM 5

CRN 142-16-5

CMF C20 H36 O4

Double bond geometry as shown.



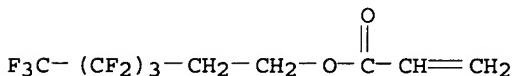
RN 478034-25-2 HCPLUS

CN 2-Butenedioic acid (2Z)-, bis(2-ethylhexyl) ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosfluorododecyl 2-propenoate, N-(hydroxymethyl)-2-propenamide, 3,3,4,4,5,5,6,6,6-nonafluorohexyl 2-propenoate and α -(9Z)-9-octadecenyl- ω -hydroxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 52591-27-2

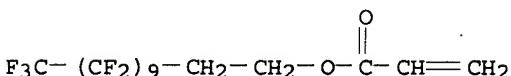
CMF C9 H7 F9 O2



CM 2

CRN 17741-60-5

CMF C15 H7 F21 O2

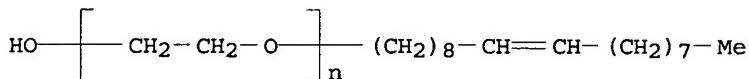


CM 3

CRN 9004-98-2

CMF (C₂H₄O)_n C₁₈H₃₆O

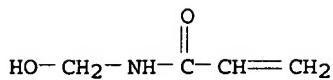
CCI PMS



CM 4

CRN 924-42-5

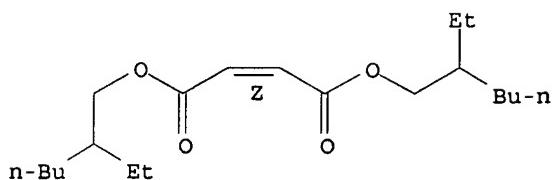
CMF C4 H7 N O2



CM 5

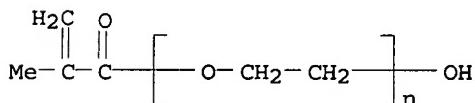
CRN 142-16-5
CMF C20 H36 O4

Double bond geometry as shown.

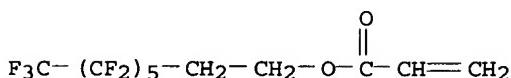


RN 478034-26-3 HCPLUS
 CN 2-Propenoic acid, 2-hydroxyethyl ester, polymer with
 α -(2-methyl-1-oxo-2-propenyl)- ω -hydroxypoly(oxy-1,2-ethanediyl), octadecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyl 2-propenoate, graft (9CI) (CA INDEX NAME)

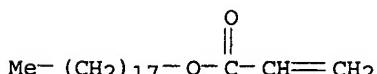
CM 1

CRN 25736-86-1
CMF (C₂ H₄ O)_n C₄ H₆ O₂
CCI PMS

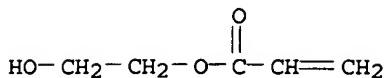
CM 2

CRN 17527-29-6
CMF C₁₁ H₇ F₁₃ O₂

CM 3

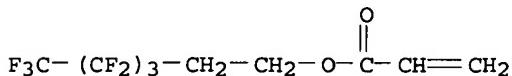
CRN 4813-57-4
CMF C₂₁ H₄₀ O₂

CM 4

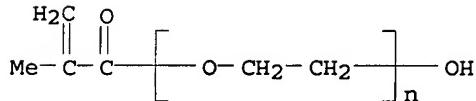
CRN 818-61-1
CMF C5 H8 O3

RN 478034-27-4 HCAPLUS
 CN 2-Propenoic acid, 2-hydroxyethyl ester, polymer with
 α -(2-methyl-1-oxo-2-propenyl)- ω -hydroxypoly(oxy-1,2-ethanediyl), 3,3,4,4,5,5,6,6,6-nonafluorohexyl 2-propenoate and octadecyl 2-propenoate, graft (9CI) (CA INDEX NAME)

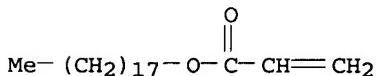
CM 1

CRN 52591-27-2
CMF C9 H7 F9 O2

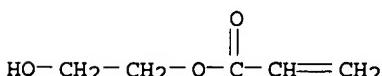
CM 2

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS

CM 3

CRN 4813-57-4
CMF C21 H40 O2

CM 4

CRN 818-61-1
CMF C5 H8 O3

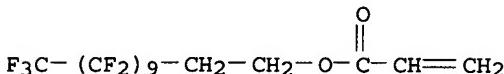
RN 478034-28-5 HCPLUS

CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafafluorododecyl ester, polymer with octadecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafafluoroctyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 17741-60-5

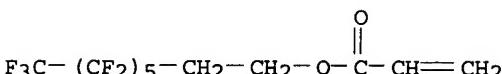
CMF C15 H7 F21 O2



CM 2

CRN 17527-29-6

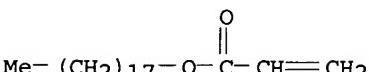
CMF C11 H7 F13 O2



CM 3

CRN 4813-57-4

CMF C21 H40 O2



IC ICM C09K003-18

ICS C09K003-18; C08F220-24; C09D171-00; C09D201-04; C09K003-00

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 40

ST fabric finishing waterproofing oilproofing coating
fluoroalkyl acrylate copolymer manuf

IT Coating materials

(antisoiling; manufacture of water- and oilproofing
compns. with long service life for fabric finishing)

IT Polyester fibers, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(fabrics, treatment of; manufacture of water- and
oilproofing compns. with long service life for fabric
finishing)

IT 478034-20-7P 478034-21-8P 478034-22-9P

478034-23-0P 478034-24-1P 478034-25-2P

478034-26-3P 478034-27-4P 478034-28-5P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
or engineered material use); PREP (Preparation); USES (Uses)(manufacture of water- and oilproofing compns. with long service
life for fabric finishing)

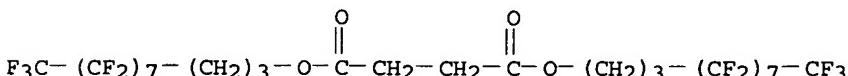
DOCUMENT NUMBER: 135:212420
 TITLE: Fluorine compounds and water- and oil-repellant compositions containing them for prevention of soiling of a surface
 INVENTOR(S): Shindo, Minako; Maekawa, Takashige; Seki, Ryuji; Furuta, Shoji; Oharu, Kazuya
 PATENT ASSIGNEE(S): Asahi Glass Company, Limited, Japan
 SOURCE: PCT Int. Appl., 24 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001064619	A1	20010907	WO 2001-JP1425	2001 0226
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2368575	AA	20010907	CA 2001-2368575	2001 0226
EP 1174417	A1	20020123	EP 2001-906315	2001 0226
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 2002060304	A1	20020523	US 2001-976435	2001 1015
US 6860926	B2	20050301	JP 2000-54069	A 2000 0229
PRIORITY APPLN. INFO.:			WO 2001-JP1425	W 2001 0226

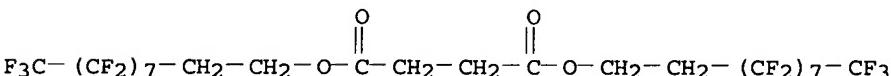
OTHER SOURCE(S): MARPAT 135:212420
 AB The compds. are of perfluorinated group-containing butanedioic acid esters, i.e., Rf1R2OCOCH2CHR1COOR3Rf2o (Rf1, Rf2 = independently polyfluoroalkyl having 3 to 22 carbon atoms; R1 = H or C1-10 alkyl; and R2, R3 = independently C1-4 alkyl or the like). Oil- and water-repellent compns. containing the compds. have good precipitation resistance. Thus, heating F(CF2)8(CH2)2OH (94% purity) 278 with p-toluenesulfonic acid 1.5 and succinic acid 36.5 in PhMe 400 g at 107° for 12 h and working up gave an ester 30 g of which was combined with a perfluoro-C6-16 alkylethyl acrylate 167, stearyl acrylate 46.2, N-methylolacrylamide 5.1, stearyl mercaptan 0.77, polyethylene glycol monooleyl ether 10.3, an acetylenic surfactant 5.1, Nikkol BT 12 (a surfactant) 5.1, tripropylene glycol 130 and water 350, emulsified, mixed with azobis(dimethyleneisobutyramidine) HCl salt 0.5 and vinyl chloride

38.5 g and heated while stirring at 60° for 15 h to give an emulsion containing 38.5% polymer particles with average diameter 0.09 μm. A 2%-solids dilution of the emulsion in water was prepared and used as dry soil repellent for nylon knitted fabric.

IT 357921-70-1P
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PREP (Preparation); USES (Uses)
 (fluorine compds. and water- and oil-repellent compns. containing them for prevention of soiling of a surface)
 RN 357921-70-1 HCAPLUS
 CN Butanedioic acid, bis(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoroundecyl) ester (9CI) (CA INDEX NAME)



IT 261928-47-6P
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PREP (Preparation); USES (Uses)
 (oil and water repellent; fluorine compds. and water- and oil-repellent compns. containing them for prevention of soiling of a surface)
 RN 261928-47-6 HCAPLUS
 CN Butanedioic acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) ester (9CI) (CA INDEX NAME)



IC ICM C07C069-63
 ICS C07C311-24; C09K003-18
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 40
 ST fabric soilproofing fluoro chem oil water repellent;
 succinic acid perfluoroalkylethyl ester oil water repellent;
 fluoropolymer acrylic soilproofing coating perfluoroalkylethyl ester additive
 IT Coating materials
 (antisoiling; fluorine compds. and water- and oil-repellent compns. containing them for prevention of soiling of a surface)
 IT Textiles
 (treatment of; fluorine compds. and water- and oil-repellent compns. containing them for prevention of soiling of a surface)
 IT 64-17-5DP, Ethanol, perfluoroalkyl-substituted, esters with succinic dichloride, uses 108-30-5DP, Succinic anhydride, diester with ethanolmethylperfluoroalkylsulfamide 109-83-1DP, N-Methylethanolamine, perfluoroalkylsulfamide, diesters with succinic anhydride 110-73-6DP, N-Ethylethanolamine, perfluoroalkylsulfamide, diesters with succinic anhydride 543-20-4DP, Succinic dichloride, diester with perfluoroalkyl-substituted ethanol 357921-70-1P
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PREP (Preparation); USES (Uses)
 (fluorine compds. and water- and oil-repellent compns. containing them for prevention of soiling of a surface)
 IT 261928-47-6P
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PREP (Preparation); USES (Uses)
 (oil and water repellent; fluorine compds. and water- and

oil-repellent compns. containing them for prevention of soiling of a surface)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L117 ANSWER 5 OF 11 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:36017 HCPLUS

DOCUMENT NUMBER: 128:141483

TITLE: Acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers

INVENTOR(S): Yasue, Toshio; Sawada, Hideo

PATENT ASSIGNEE(S): Showa Denko K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

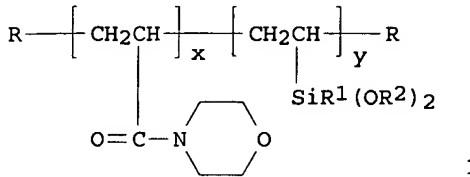
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 10007742	A2	19980113	JP 1996-160267	1996 0620
PRIORITY APPLN. INFO.:			JP 1996-160267	1996 0620

GI

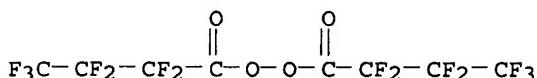


AB The modifiers, used for treatments of fibers, paper, and polymer and glass surfaces, contain acryloylmorpholine-substituted fluorosilicone oligomers I [R = (CF₂)_nF, CF(CF₃)O[CF₂(CF₃)O]_mC₃F₇; n = 1-15; m = 0-6; x, y ≥ 1; R₁ = lower alkyl, lower alkoxy; R₂ = lower alkyl]. Thus, di(perfluorobutyryl) peroxide 21.3, trimethoxyvinylsilane 2.22, and acryloylmorpholine 2.12 g were treated at 45° for 3 h in AK 225 to give I (R = F₇C₃), 1 part of which was mixed with 100 parts PhMe solution of Bu acrylate-Et acrylate-acrylonitrile-2-hydroxyethyl methacrylate copolymer (solid content 22%) and 10 parts DMF to give a fiber-treating agent. A solution containing thus obtained treating agent, 2,4,6-tri(N-methoxymethyl, N-methyl)amino-1,3,5-triazine, alkylbenzenesulfonic acids, and PhMe was applied on a nylon woven fabric and treated at 110-160° for 2 h to give a treated fabric showing good water and oil repellency.

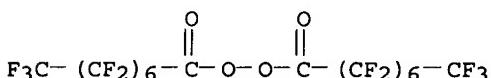
IT 336-64-1DP, Di(perfluorobutyryl) peroxide, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer 34434-27-0DP, Bis(perfluoroctanoyl) peroxide, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer 42514-14-7DP, Di(perfluoroheptanoyl) peroxide, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)

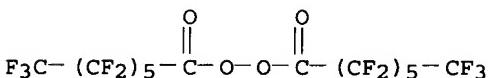
RN 336-64-1 HCAPLUS
 CN Peroxide, bis(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl) (9CI) (CA INDEX NAME)



RN 34434-27-0 HCAPLUS
 CN Peroxide, bis(2,2,3,3,4,4,5,5,6,6,7,7,8,8-pentadecafluoro-1-oxooctyl) (9CI) (CA INDEX NAME)



RN 42514-14-7 HCAPLUS
 CN Peroxide, bis(2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoro-1-oxoheptyl) (9CI) (CA INDEX NAME)



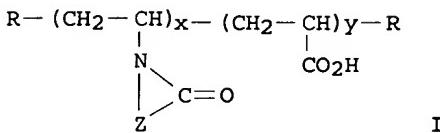
IC ICM C08F230-08
 ICS C08F220-58; C09D005-00; C09D133-26; C09D143-04; C09K003-00; C09K003-18; D06M013-50; D06M015-643; C08J005-08; C08J007-04
 CC 37-2 (Plastics Manufacture and Processing)
 Section cross-reference(s): 40, 42, 43, 46, 57
 ST acryloyl morpholine fluorosilicone oligomer functionality modifier; fiber treating agent acryloylmorpholine fluorosilicone oligomer; paper treating agent acryloylmorpholine fluorosilicone oligomer; surface modifier polymer acryloylmorpholine fluorosilicone oligomer; water oil repellency acryloylmorpholine fluorosilicone oligomer; glass surface modifier acryloylmorpholine fluoro silicone
 IT Polysiloxanes, preparation
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (acrylic; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
 IT Polyesters, properties
 RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
 (acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
 IT Fabric finishing
 (agents; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
 IT Coating materials

- (antisoiling; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT Textiles
 - (cotton; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT Polyamide fibers, properties
 - Polyester fibers, properties
 - RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
 - (fabric; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT Metals, miscellaneous
 - RL: MSC (Miscellaneous)
 - (ions, absorbents for; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT Paper
 - (kraft; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT Coating materials
 - Coating materials
 - Coating materials
 - (oil- and water-resistant; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT 336-64-1DP, Di(perfluorobutyryl) peroxide, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer 34434-27-0DP, Bis(perfluoroctanoyl) peroxide, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer 42514-14-7DP, Di(perfluoroheptanoyl) peroxide, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer 56347-79-6DP, Di(perfluoro-2-methyl-3-oxahexanoyl) peroxide, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer 133414-71-8DP, reaction products with acryloylmorpholine-vinylmethoxysilane oligomer
 - RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT 9002-86-2, Vinyl chloride homopolymer 25038-59-9, Poly(ethylene terephthalate), properties
 - RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
 - (acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT 7440-70-2, Calcium, processes
 - RL: PEP (Physical, engineering or chemical process); PROC (Process)
 - (ions, absorption of; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)
- IT 179679-13-1DP, reaction products with perfluoroalkyl peroxides
 - RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 - (oligomeric; acryloylmorpholine-substituted acrylic fluorosilicone oligomeric functionality modifiers for polymers, fibers, paper, and glass)

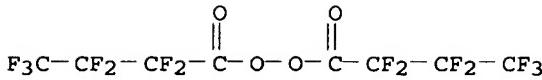
L117 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1998:36016 HCAPLUS
 DOCUMENT NUMBER: 128:141482
 TITLE: Fluoroalkyl- and vinylpyrrolidone- or
 vinylpiperidone-substituted acrylic oligomeric
 functionality modifier
 INVENTOR(S): Yasue, Toshio; Sahada, Hideo
 PATENT ASSIGNEE(S): Showa Denko K. K., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 10007738	A2	19980113	JP 1996-160268	1996 0620
PRIORITY APPLN. INFO.:			JP 1996-160268	1996 0620

GI



- AB The modifiers, used for treatments of **fibers**, paper, and polymer surfaces and as surfactants and metal ion absorbents, contain fluoroalkyl-substituted oligomers I [R = (O-bridged) C1-25 fluoroalkyl; Z = (CH₂)₃, (CH₂)₄; x, y ≥ 1]. Thus, acrylic acid 24, di(perfluoro-2-methyl-3-oxahexanoyl) peroxide 5, and N-vinyl-2-pyrrolidone 25 mmol were treated at 40° for 5 h in AK 225 to give I [R = F7C3OCF(CF₃), Z = (CH₂)₃], 1 part of which was mixed with 100 parts PhMe solution of Bu acrylate-Et acrylate-acrylonitrile-2-hydroxyethyl methacrylate copolymer (solid content 22%) and 10 parts DMF to give a **fiber**-treating agent. A solution containing thus obtained treating agent, 2,4,6-tri(N-methoxymethyl, N-methyl)amino-1,3,5-triazine, alkylbenzenesulfonic acids, and PhMe was applied on a nylon woven fabric and treated at 110-160° for 2 h to give a **fabric** showing good water and oil repellency.
- IT 336-64-1DP, Di(perfluorobutyryl) peroxide, reaction products with polyacrylic acid and vinylpyrrolidone
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone- substituted acrylic oligomeric functionality modifier for polymers, **fibers**, and paper)
- RN 336-64-1 HCAPLUS
 CN Peroxide, bis(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl) (9CI) (CA INDEX NAME)



- IC ICM C08F220-06
 ICS B01F017-52; C08F226-06; C08F226-10; C09K003-00; D06M013-398;
 C09D133-02; C09D139-04
- CC 37-2 (Plastics Manufacture and Processing)
 Section cross-reference(s): 40, 42, 43, 46
- ST acrylic oligomer fluoroalkyl vinylpyrrolidone functionality modifier; fiber treatment acrylic vinylpiperidone fluoroalkyl oligomer; paper treatment acrylic vinylpyrrolidone fluoroalkyl oligomer; surfactant vinyl piperidone acrylic fluoroalkyl oligomer; metal ion absorbent acrylic fluoroalkyl oligomer; surface modifier polymer acrylic fluoroalkyl oligomer; water oil repellency acrylic fluoroalkyl oligomer
- IT Fabric finishing
 (agents; fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-substituted acrylic oligomeric functionality modifier for polymers, fibers, and paper)
- IT Coating materials
 (antisoiling; fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-substituted acrylic oligomeric functionality modifier for polymers, fibers, and paper)
- IT Polyamide fibers, properties
 Polyester fibers, properties
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
 (fabric; fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-substituted acrylic oligomeric functionality modifier for polymers, fibers, and paper)
- IT Surfactants
 (fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-substituted acrylic oligomeric functionality modifier for polymers, fibers, and paper)
- IT Polyesters, properties
 RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
 (fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-substituted acrylic oligomeric functionality modifier for polymers, fibers, and paper)
- IT Absorbents
 (for metal ion; fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-substituted acrylic oligomeric functionality modifier for polymers, fibers, and paper)
- IT Metals, miscellaneous
 RL: MSC (Miscellaneous)
 (ions, absorbents for; fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-substituted acrylic oligomeric functionality modifier for polymers, fibers, and paper)
- IT Paper
 (kraft; fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-substituted acrylic oligomeric functionality modifier for polymers, fibers, and paper)
- IT Coating materials
 Coating materials
 Coating materials
 (oil- and water-resistant; fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-substituted acrylic oligomeric functionality modifier for polymers, fibers, and paper)
- IT 88-12-0DP, N-Vinyl-2-pyrrolidone, reaction products with polyacrylic acid and perfluoroalkyl peroxide 336-64-1DP, Di(perfluorobutyryl) peroxide, reaction products with polyacrylic acid and vinylpyrrolidone 4370-23-4DP, reaction products with

polyacrylic acid and perfluoroalkyl peroxide 9003-01-4DP,
 Poly(acrylic acid), reaction products with vinylpyrrolidone or
 vinylpiperidone and perfluoroalkyl peroxide 56347-79-6DP,
 Di(perfluoro-2-methyl-3-oxahexanoyl) peroxide, reaction products
 with polyacrylic acid and vinylpyrrolidone 133414-70-7DP,
 reaction products with polyacrylic acid and vinylpiperidone
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 PRP (Properties); TEM (Technical or engineered material use); PREP
 (Preparation); USES (Uses)
 (fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-
 substituted acrylic oligomeric functionality modifier for
 polymers, fibers, and paper)

- IT 9002-86-2, Vinyl chloride homopolymer 25038-59-9, Poly(ethylene terephthalate), properties
 RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
 (fluoroalkyl- and vinylpyrrolidone- or vinylpiperidone-
 substituted acrylic oligomeric functionality modifier for
 polymers, fibers, and paper)
- IT 7440-70-2, Calcium, processes
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (ions, absorption of; fluoroalkyl- and vinylpyrrolidone- or
 vinylpiperidone-substituted acrylic oligomeric functionality modifier for polymers, fibers, and paper)

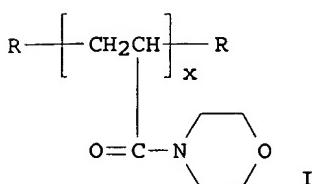
L117 ANSWER 7 OF 11 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:36013 HCPLUS
 DOCUMENT NUMBER: 128:141481
 TITLE: Acryloylmorpholine- and fluoroalkyl-
 substituted acrylic oligomeric functionality modifiers
 INVENTOR(S): Yasue, Toshio; Sawada, Hideo
 PATENT ASSIGNEE(S): Showa Denko K. K., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

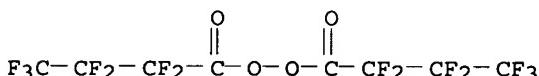
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 10007731	A2	19980113	JP 1996-160269	1996 0620

PRIORITY APPLN. INFO.:	JP 1996-160269	1996 0620
		1996 0620

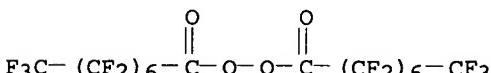
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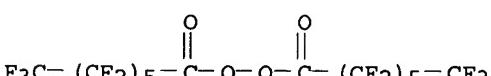
- AB The modifiers, used for treatments of fibers, paper, and polymer surfaces and as surfactants and metal ion absorbents, contain acryloylmorpholine- and fluoroalkyl-substituted oligomers I [R = (CF₂)_nF, CF(CF₃)O[CF₂(CF₃)O]_mC₃F₇; n = 1-15; m = 0-6; x ≥1]. Thus, 3.29 g di(perfluoro-2-methyl-3-oxahexanoyl) peroxide and 3.39 g acryloylmorpholine were treated at 45° for 5 h in AK 225 to give I [R = F₇C₃OCF(CF₃)], 1 part of which was mixed with 100 parts PhMe solution of Bu acrylate-Et acrylate-acrylonitrile-2-hydroxyethyl methacrylate copolymer (solid content 22%) and 10 parts DMF to give a fiber -treating agent. A solution containing thus obtained treating agent, 2,4,6-tri(N-methoxymethyl, N-methyl)amino-1,3,5-triazine, alkylbenzenesulfonic acids, and PhMe was applied on a nylon woven fabric and treated at 110-160° for 2 h to give a treated fabric showing good water and oil repellency.
- IT 336-64-1DP, Di(perfluorobutyryl) peroxide, reaction products with acryloylmorpholine oligomer 34434-27-0DP, Bis(perfluoroctanoyl) peroxide, reaction products with acryloylmorpholine oligomer 42514-14-7DP, Di(perfluoroheptanoyl) peroxide, reaction products with acryloylmorpholine oligomer
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, fibers, and paper)
- RN 336-64-1 HCAPLUS
 CN Peroxide, bis(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl) (9CI) (CA INDEX NAME)



- RN 34434-27-0 HCAPLUS
 CN Peroxide, bis(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl) (9CI) (CA INDEX NAME)



- RN 42514-14-7 HCAPLUS
 CN Peroxide, bis(2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoro-1-oxoheptyl) (9CI) (CA INDEX NAME)



- IC ICM C08F126-10
 ICS B01F017-52; C08F126-06; C09K003-00; D06M013-398; C09D139-04
 CC 37-2 (Plastics Manufacture and Processing)
 Section cross-reference(s): 40, 42, 43, 46
 ST acryloyl morpholine fluoroalkyl oligomer functionality modifier; fiber treating agent acryloylmorpholine fluoroalkyl oligomer; paper treating agent acryloylmorpholine fluoroalkyl oligomer; surfactant acryloylmorpholine fluoroalkyl oligomer;

metal ion absorbent acryloylmorpholine fluoroalkyl oligomer;
 surface modifier polymer acryloylmorpholine fluoroalkyl oligomer;
 water oil repellency acryloylmorpholine fluoroalkyl oligomer

IT Surfactants
 (acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, fibers, and paper)

IT Polyesters, properties
 RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
 (acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, fibers, and paper)

IT Fabric finishing
 (agents; acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, fibers, and paper)

IT Coating materials
 (antisoiling; acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, fibers, and paper)

IT Textiles
 (cotton; acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, fibers, and paper)

IT Polyamide fibers, properties
 Polyester fibers, properties
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
 (fabric; acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, fibers, and paper)

IT Absorbents
 (for metal ion; acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, fibers, and paper)

IT Metals, miscellaneous
 RL: MSC (Miscellaneous)
 (ions, absorbents for; acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, fibers, and paper)

IT Paper
 (kraft; acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, fibers, and paper)

IT Coating materials
 Coating materials
 Coating materials
 (oil- and water-resistant; acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, fibers, and paper)

IT 336-64-1DP, Di(perfluorobutyryl) peroxide, reaction products with acryloylmorpholine oligomer 34434-27-0DP, Bis(perfluoroctanoyl) peroxide, reaction products with acryloylmorpholine oligomer 42514-14-7DP, Di(perfluoroheptanoyl) peroxide, reaction products with acryloylmorpholine oligomer 56347-79-6DP, Di(perfluoro-2-methyl-3-oxahexanoyl) peroxide, reaction products with acryloylmorpholine oligomer 133414-70-7DP, reaction products with acryloylmorpholine oligomer 133414-71-8DP, reaction products with acryloylmorpholine oligomer
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, fibers)

- , and paper)
IT 9002-86-2, Vinyl chloride homopolymer 25038-59-9, Poly(ethylene terephthalate), properties
RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, fibers, and paper)
- IT 7440-70-2, Calcium, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(ions, absorption of; acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, fibers, and paper)
- IT 28902-82-1DP, Acryloylmorpholine homopolymer, reaction products with perfluoroalkyl peroxides
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(oligomeric; acryloylmorpholine- and fluoroalkyl-substituted acrylic oligomeric functionality modifiers for polymers, fibers, and paper)

L117 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:787921 HCAPLUS

DOCUMENT NUMBER: 128:76565

TITLE: Polyvinyl chloride-finished mesh sheets and method for protecting the sheets from abrasion, blooming, outdoor exposure and soiling

INVENTOR(S): Sakobe, Ikou; Ishikawa, Kunihiro

PATENT ASSIGNEE(S): Unitika Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 09316780	A2	19971209	JP 1996-137951	1996 0531

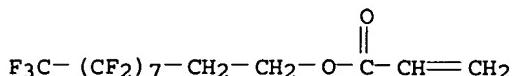
PRIORITY APPLN. INFO.: JP 1996-137951
1996
0531

AB The sheets useful for replacing conventional tarps in their typical applications are coated with a composition containing (A) copolymers derived from fluorinated or/and siloxane-modified (meth)acrylates and other (meth)acrylate monomers, (B) homopolymers bearing (meth)acryloyl groups and (C) fluoroolefin polymers for preventing the bleeding of PVC processing aids such as plasticizers and improving the resistance to abrasion, snow and soiling. Thus, dipping a woven fabric of polyester fibers in a mixture of PVC 100, di(2-methylhexyl) phthalate 60, CaCO₃ 20, Zn stearate 3 and pigment 10 parts and heating gave a plastic tarp which was coated with a composition of F-containing siloxane methacrylate polymer 10, PMMA 50 and a tetrafluoroethylene-vinylidene chloride copolymers 40 parts to give a sheet with good resistance to abrasion, snow and soiling.

IT 27905-45-9D, 2-(Perfluorooctyl)ethyl acrylate, polymers with (meth)acrylate compds. bearing siloxane groups and comonomers

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (protective coating for use on polyvinyl chloride-finished synthetic tarps with good resistance to abrasion, blooming, outdoor exposure and soiling)

RN 27905-45-9 HCPLUS
 CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester (9CI) (CA INDEX NAME)



IC ICM D06M015-248
 ICS D06M015-277
 CC 40-9 (Textiles and Fibers)
 Section cross-reference(s): 38, 42
 IT Coating materials
 (antisoiling; protective coating for use on polyvinyl chloride-finished synthetic tarps with good resistance to abrasion, blooming, outdoor exposure and soiling)
 IT Polyester fibers, uses
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (plastic tarps; protective coating for use on polyvinyl chloride-finished synthetic tarps with good resistance to abrasion, blooming, outdoor exposure and soiling)
 IT 80-62-6D, Methyl methacrylate, graft copolymers with methacryloyloxypropyldimethylsilyl- and trimethylsilyl-terminated siloxanes, and F-containing (meth)acrylate compds. 9010-88-2, Dianal BR-64 25034-86-0, Dianal BR-80 25190-89-0, Kynar ADS 25684-76-8, Kynar SL 27905-45-9D, 2-(Perfluoroctyl)ethyl acrylate, polymers with (meth)acrylate compds. bearing siloxane groups and comonomers 31900-57-9D, Dimethylsilanediol homopolymer, methacryloyloxypropyldimethylsilyl- and trimethylsilyl-terminated, graft polymers with F-containing (meth)acrylate compds. and other comonomers 123109-42-2D, Polydimethylsiloxane, methacryloyloxypropyldimethylsilyl- and trimethylsilyl-terminated, polymers with F-containing (meth)acrylate compds. and other comonomers 138931-88-1, Dianal BR-108
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (protective coating for use on polyvinyl chloride-finished synthetic tarps with good resistance to abrasion, blooming, outdoor exposure and soiling)

L117 ANSWER 9 OF 11 HCPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:636701 HCPLUS

DOCUMENT NUMBER: 125:250587

TITLE: Water- and oil-repellent agents of fluoropolymers with improved soiling resistance

INVENTOR(S): Ito, Katsuji; Yamauchi, Masaru

PATENT ASSIGNEE(S): Asahi Glass Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 08199111 A2 19960806 JP 1995-11004 1995
JP 3463391 B2 20031105 JP 1995-11004 0126
PRIORITY APPLN. INFO.: JP 1995-11004 1995
0126

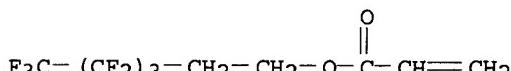
AB The water-dispersed agents with good dry soiling resistance for fibers and fabrics contain 100 parts of polymers having structural units of polyfluoroalkyl-containing α , β -unsatd. compds. and 10-60 parts fluoroolefin polymers. Thus, a fabric was dipped in a 2/0.5 mixture of a fluoropolymer prepared from cyclohexyl vinyl ether 38.0, Et vinyl ether 22.1, hydroxybutyl vinyl ether 1.5, and $\text{CH}_2:\text{CHO}(\text{CH}_2)_4(\text{OCH}_2\text{CH}_2)\text{nOH}$ ($n = 1-10$) 4.5% and another fluoropolymer prepared from p-fluoroalkylethyl acrylate 140, vinyl chloride 40, 2-hydroxyethyl acrylate 8, and dioctyl maleate 12 parts, dried at 110° for 90 s, and heated at 170° for 60 s to give a test piece showing good water and oil repellency and dry soiling resistance for polyester and cotton fabrics.

IT 182359-38-2P 182359-39-3P
RL: IMF (Industrial manufacture); POF (Polymer in formulation);
PRP (Properties); TEM (Technical or engineered material use); PREP
(Preparation); USES (Uses)
(water- and oil-repellents of fluoropolymers with improved
soiling resistance)

RN 182359-38-2 HCAPLUS
CN 2-Butenedioic acid (2Z)-, bis(2-ethylhexyl) ester, polymer with chloroethene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosfluorododecyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heptadecafluorododecyl 2-propenoate, 2-hydroxyethyl 2-propenoate, 3,3,4,4,5,5,6,6,6-nonafluorohexyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosfluorotetradecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyl 2-propenoate (9CI)
(CA INDEX NAME)

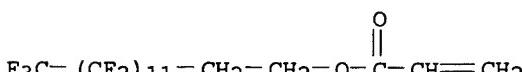
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CRN 52591-27-2
CMF C9 H7 F9 O2



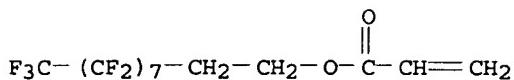
CM 2

CRN 34395-24-9
CMF C17 H7 F25 Q2



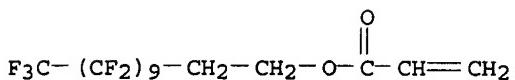
CM 3

CRN 27905-45-9
 CMF C13 H7 F17 O2



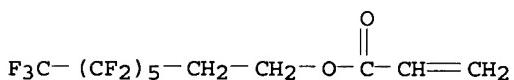
CM 4

CRN 17741-60-5
 CMF C15 H7 F21 O2



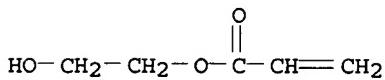
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CRN 17527-29-6
 CMF C11 H7 F13 O2



CM 6

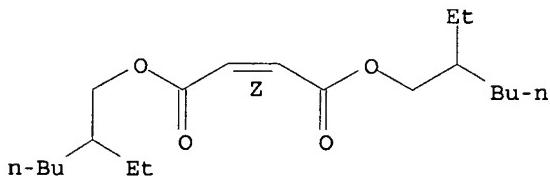
CRN 818-61-1
 CMF C5 H8 O3



CM 7

CRN 142-16-5
 CMF C20 H36 O4

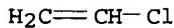
Double bond geometry as shown.



CM 8

CRN 75-01-4

CMF C2 H3 Cl



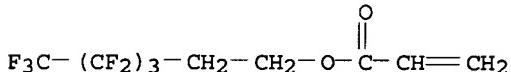
RN 182359-39-3 HCPLUS

CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosfluorododecyl ester, polymer with
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorododecyl
 2-propenoate, 2-hydroxyethyl 2-propenoate, 3,3,4,4,5,5,6,6,6-nonafluorohexyl 2-propenoate, octadecyl 2-propenoate,
 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-pentacosafuorotetradecyl 2-propenoate and
 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyl 2-propenoate (9CI)
 (CA INDEX NAME)

CM 1

CRN 52591-27-2

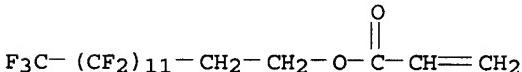
CMF C9 H7 F9 O2



CM 2

CRN 34395-24-9

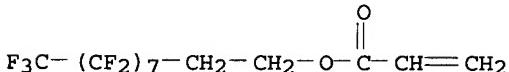
CMF C17 H7 F25 O2



CM 3

CRN 27905-45-9

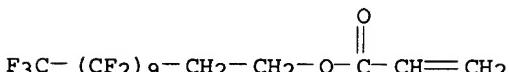
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CM 4

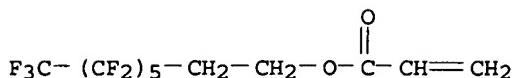
CRN 17741-60-5

CMF C15 H7 F21 O2



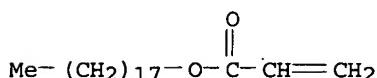
CM 5

CRN 17527-29-6
CMF C11 H7 F13 O2



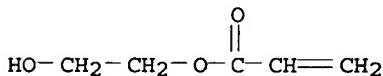
CM 6

CRN 4813-57-4
CMF C21 H40 O2



CM 7

CRN 818-61-1
CMF C5 H8 O3



IC ICM C09D127-12
ICS C09D133-14; C09K003-00; C09K003-18; D06M015-277
CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 40
ST oil water repellent fluoropolymer; water dispersed water oil repellent fluoropolymer; soiling resistance fabric fluoropolymer
IT Textiles
(substrates; water- and oil-repellents of fluoropolymers with improved soiling resistance for fabric coating)
IT Coating materials
(antisoiling, water- and oil-repellents of fluoropolymers with improved soiling resistance)
IT 126682-75-5P 182359-37-1P 182359-38-2P
182359-39-3P 182359-40-6P 182359-41-7P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(water- and oil-repellents of fluoropolymers with improved soiling resistance)

L117 ANSWER 10 OF 11 HCPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:424741 HCPLUS
DOCUMENT NUMBER: 107:24741
TITLE: Soiling-resistant synthetic fibers
INVENTOR(S): Shinonome, Osami; Kitahara, Takeshi; Murakami, Shiro
PATENT ASSIGNEE(S): Unitika Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61245370	A2	19861031	JP 1985-85168	1985 0418
PRIORITY APPLN. INFO.:			JP 1985-85168	1985 0418

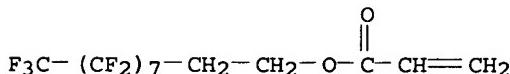
AB Title **fibers** having fine projections on the surface are composed of heterogeneous mixts. of thermoplastic polymers and polymers having higher glass transition temperature than that of the thermoplastic polymers and are coated with F-containing films. Poly(ethylene terephthalate) (90 parts) was mixed with 10 parts polyarylates obtained by polymerization of bisphenol A and 1:1 mol terephthaloyl chloride and isophthaloyl chloride, and 0.5 part Bu₂HPO₄, kneaded at 270° for 4 min, melt spun at 280°, taken up on a roller at 6000 m/min, and coated with 2-chloroethyl vinyl ether-2-hydroxyethyl acrylate-2-perfluoroctylethyl acrylate-vinyl chloride copolymer dispersed in mineral oil to obtain **fibers** (75 denier/16 filament) which had fine projections on the surface and showed strength 3.2 g/denier and elongation 43%.

IT 92213-60-0, 2-Chloroethylvinyl ether-2-hydroxyethyl acrylate-2-perfluoroctylethyl acrylate-vinyl chloride copolymer
 RL: USES (Uses)
 (coating, for polyester-polyarylate bicomponent **fibers**, for good soil resistance)

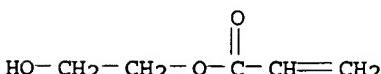
RN 92213-60-0 HCPLUS

CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester, polymer with chloroethene, (2-chloroethoxy)ethene and 2-hydroxyethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

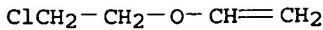
CRN 27905-45-9
 CMF C13 H7 F17 O2

CM 2

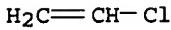
CRN 818-61-1
 CMF C5 H8 O3

CM 3

CRN 110-75-8
 CMF C4 H7 Cl O



CM 4

CRN 75-01-4
CMF C2 H3 Cl

IC ICM D06M015-00
 ICS D06M013-00
 ICA D01F011-08
 CC 40-5 (**Textiles and Fibers**)
 Section cross-reference(s): 42
 ST polyester fiber soiling resistant; fluoroacrylic coating
 antisoiling polyester fiber; polyarylate
 fiber bicomponent PET; chloroethoxyethylene copolymer
 antisoiling coating fiber; hydroxyethyl acrylate
 copolymer antisoiling coating; fluoroctylethyl acrylate
 copolymer antisoiling coating; vinyl chloride copolymer
 antisoiling coating
 IT Polyester fibers, uses and miscellaneous
 RL: USES (Uses)
 (bicomponent containing bisphenol A polyarylates, coatings for,
 fluoroacrylic polymers as, for soiling resistance)
 IT Coating materials
 (fluoroacrylic polymers, for polyester-polyarylate bicomponent
 fibers)
 IT 92213-60-0, 2-Chloroethylvinyl ether-2-hydroxyethyl
 acrylate-2-perfluoroctylethyl acrylate-vinyl chloride copolymer
 RL: USES (Uses)
 (coating, for polyester-polyarylate bicomponent **fibers**
 , for good soil resistance)
 IT 25639-68-3, Bisphenol A-isophthaloyl chloride-terephthaloyl
 chloride copolymer 39281-59-9
 RL: USES (Uses)
 (fibers containing PET and, coatings for, fluoroacrylic
 polymers as, for soiling resistance)

L117 ANSWER 11 OF 11 HCPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1987:34579 HCPLUS
 DOCUMENT NUMBER: 106:34579
 TITLE: Soil release composition and its use
 INVENTOR(S): Hisamoto, Iwao; Hirai, Masaru; Ishikawa,
 Sueyoshi
 PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan
 SOURCE: Eur. Pat. Appl., 29 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 195323	A2	19860924	EP 1986-103005	1986 0306
EP 195323	A3	19881109		

EP 195323 R: DE, FR, GB US 4695488	B1	19920826		
	A	19870922	US 1986-835754	1986 0303
JP 62007782	A2	19870114	JP 1986-52296	1986 0310
JP 04003788 CN 86101422	B4	19920124	CN 1986-101422	1986 0312
CN 1004420	A	19860924		
PRIORITY APPLN. INFO.:	B	19890607	JP 1985-49944	A 1985 0312

AB Coatings containing vinyl polymers with pendant fluoroalkyl oxyalkylene groups, hydrophilic resins, and, optionally, water and oil repellents have good oil and soil resistance and water absorption or repellency and are useful on plastics, fabrics, and paper. A mixture of C₂F₅(CF₂CF₂)_nCH₂CH(OH)CH₂OZCOCMe:CH₂ copolymer [Z = polyoxyethylene; n 2, 3, 4, 5, 6 = 3, 55, 28, 12, and 3%, resp.] 0.5, Sumitex-901 0.5, Sumitex-102 0.5, and Zn(NO₃)₂ 0.5 part, coated on nylon cloth, had H₂O absorption 30 and 30 s and oil repellency (100 = best, 0 = worst) 90 and 70 before and after washing, resp.; vs. >60, >60, 80, and 70, resp., for a polymer without oxyalkylene groups in the fluoroalkyl pendent group.

IT 92708-16-2 106185-99-3

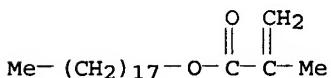
RL: USES (Uses)
(soilproofing agents, for fabrics and coatings)

RN 92708-16-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heptadecafluorodecyl 2-propenoate (9CI) (CA INDEX NAME)

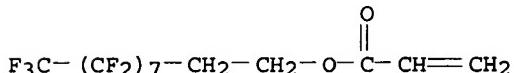
CM 1

CRN 32360-05-7
CMF C22 H42 O2



CM 2

CRN 27905-45-9
CMF C13 H7 F17 O2

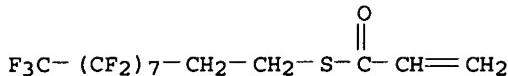


RN 106185-99-3 HCPLUS

CN 2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with S-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) 2-propenethioate (9CI) (CA INDEX NAME)

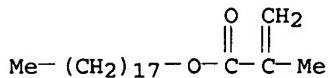
CM 1

CRN 106185-98-2
 CMF C13 H7 F17 O S



CM 2

CRN 32360-05-7
 CMF C22 H42 O2



- IC ICM C08L033-16
 ICS D06M015-277
 CC 40-9 (**Textiles and Fibers**)
 Section cross-reference(s): 42, 43
 IT Urethane polymers, uses and miscellaneous
 RL: USES (Uses)
 (in soilproofing agents for fabrics and coatings)
 IT Polyamide fibers, uses and miscellaneous
 Polyester fibers, uses and miscellaneous
 RL: USES (Uses)
 (soilproofing finishes for, polyethylene glycol fluoroalkyl
 ether methacrylate polymers as)
 IT Oilproofing
 Soilproofing
 (agents, polyethylene glycol fluoroalkyl ether methacrylate
 polymers, for textiles)
 IT Coating materials
 (antisoiling, polyethylene glycol fluoroalkyl ether
 methacrylate polymers)
 IT 136-84-5 9003-08-1 59763-47-2 67167-00-4 106254-20-0
 106254-21-1 106255-46-3 106255-51-0 106255-55-4
 RL: USES (Uses)
 (in soilproofing agents for fabrics and coatings)
 IT 100-42-5D, polymers with polyethylene glycol fluoroalkyl ether
 methacrylates 106-91-2D, Glycidyl methacrylate, polymers with
 polyethylene glycol fluoroalkyl ether methacrylates 141-32-2D,
 polymers with polyethylene glycol fluoroalkyl ether methacrylates
 924-42-5D, polymers with polyethylene glycol fluoroalkyl ether
 methacrylates 9003-53-6D, Polystyrene, thioalkyl acrylate
 derivs., polymers with polyethylene glycol fluoroalkyl ether
 methacrylates 25736-86-1D, perfluoroalkyl ethers, copolymers
 25736-86-1D, polymers with polyethylene glycol fluoroalkyl ether
 methacrylates 92708-16-2 106185-99-3
 RL: USES (Uses)
 (soilproofing agents, for fabrics and coatings)

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